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chain nodes : 1 2 3 4 5 6 13 14 ring nodes : 7 8 9 10 11 12 chain bonds : 1-2 2-3 3-4 4-5 5-6 6-7 10-13 13-14 ring bonds : 7-8 7-12 8-9 9-10 10-11 11-12 exact bonds : 1-2 2-3 3-4 4-5 5-6 6-7 10-13 13-14 normalized bonds : 7-8 7-12 8-9 9-10 10-11 11-12

Match level : 1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:Atom 8:Atom 9:Atom 11:Aton 12:Atom 13:CLASS 14:CLASS

STRUCTURE UPLOADED

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SAMPLE SEARCH INITIATED 09:22:25 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED -43 TO ITERATE

100.0% PROCESSED 43 ITERATIONS 3 ANSWERS SEARCH TIME: 00.00.01

> 3 TO 163

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PROJECTED ANSWERS: 3 SEA SSS SAM L1

=> d scan

12 3 ANSWERS REGISTRY COPYRIGHT 2009 ACS on STN

IN 4,9-Dioxa-3,10-disiladodec-6-ene, 6-[[4-[(3E)-3,4-bis[[[(1,1-

 $\label{lem:dimethylethyl} $$\dim thylsilyl]oxy]$ nethyl]-6-(4-iodophenyl)-3-hexene-1,5-diynyl]phenyl]-2,2,3,3,10,10,11,11-octamethyl-7-[(trimethylsilyl)ethynyl]-, (6E)- (9CI) $$$

MF C55 H85 I O4 Si5

Double bond geometry as shown.

PAGE 1-B

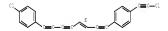
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PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

- L2 3 ANSWERS REGISTRY COPYRIGHT 2009 ACS on STN
- IN INDEX NAME NOT YET ASSIGNED
- MF C22 H10 C12

Double bond geometry as shown.



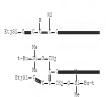
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

- 12 3 ANSWERS REGISTRY COPYRIGHT 2009 ACS on STN
- IN Copper(2+), bis(10,13-bis([38)-3,4-bis([[(1,1-dinchy)zehy)]-6-hziehyldinchylsily])-3-hexane-1,5-diyny]diyyrido(3,2-a:2',3'-o]phenazin-n04,xkl5]-, (T-4)-, bis(hexafluorophosphate(1-)] (901)
- MF C140 H212 Cu N8 O8 Si12 . 2 F6 P

CM 1

PAGE 1-A



PAGE 1-C

PAGE 2-A

CM 2



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

ALL ANSWERS HAVE BEEN SCANNED

=> s 11 sss full FULL SEARCH INITIATED 09:22:59 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 765 TO ITERATE

100.0% PROCESSED 765 ITERATIONS 49 ANSWERS SEARCH TIME: 00.00.01

L3 49 SEA SSS FUL L1

=> file caplus C

=> s 13 L4 15 L3

=> d ibib abs hitstr 1-

YOU HAVE REQUESTED DATA FROM 15 ANSWERS - CONTINUE? Y/(N):y

L4 ANSWER 1 OF 15 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2009:1167687 CAPLUS Full-text

DOCUMENT NUMBER: 151:470282

TITLE: Synthesis of hybrid masked triyne-phenylene axial rods

containing (E)- β -chlorovinylsilanes in the

π-conjugated framework

AUTHOR(S): Weller, Michael D.; Kariuki, Benson M.; Cox, Liam R. CORPORATE SOURCE: School of Chemistry, The University of Birmingham,

Birmingham, B15 2TT, UK

SOURCE: Journal of Organic Chemistry (2009), 74(20), 7898-7907

CODEN: JOCEAH; ISSN: 0022-3263

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

BB Silyl-masked hexayme Me3SiC.tplbond.CCl:c(SiR3)C.tplbond.CC.tplbond.C(SiR3):CClC.tplbond.CSiMe3 (7, SiR3 = tbmP3Si) underçoes flucride-induced β-elmination yielding, after terminal modifications, 1,12-diaryldodecahexaymes; compared to its positional isomer

Me3SiC.tpibond.CC(SiR3):cOIC.tpibond.CC.tpibond.CCI:C(SiR3)C.tpibond.CSIMe 3 (2, same SiR3), prepared earlier, the compound 7 provides increased flexibility, allowing introduction of aromatic spacer groups, useful in production of carbyne-type mol. wires. A two-directional synthesis of a masked heavyne 7, in which two β-chlorovinyisilanes protect two of the internal alkynes, is reported. The key step involves the Pd-catalyzed oxidative dimerization of alkyne BC.tpibond.CCISIR3]:COICECOTEP (10) to

provide diyne THEOCECCLIC(SIR3)C.tplbond.CC(sIR3)C.tplbCOTCP [12], which is elaborated into centrosym. masked hexayne 7 in four steps. Masked hexayne 7 is a constitutional isomer of masked hexayne 7 is a constitutional isomer of masked hexayne 7 is a constitutional isomer of masked hexayne 7 is a root as convenient a building block as 2 for application in cligogree assembly, one of its precursors, namely alkyne 10, could be used successfully in Sorogashira couplings, which allowed the incorporation of aromatic spacers and the formation of hwistin masked triver-charvlenge.

Me3SiC.tplbond.CCCl:C(SiR3)C.tplbond.C-1,4-

C6H4C.tplbond.CC(SiR3):CClC.tplbond.CSiMe3 (20) and

[Me3Sic.tplbond.CCC1:C[SiR3]C.tplbond.C-1,4-C6E4C.tplbond.C]2 (28). Compds. 20 and 28 both contain renovable end-groups, which will permit their application as building blocks for the assembly of classes of long-chain, x-conjugated rod-like mois. Rod-like moi.

Me2C(OB)C.tpibond.CCCl:c(SiR3)(C.tpibond.CCGE4C.tpibond.C)2C(SiR3):CClC.tp lbond.CCMe2(OB) (34, CGE4 = 1,4-phenylene), which possesses a similar conjugated scaffold as 28, was also prepared by using a similar strategy. Treatment of 34 with TBAF effected a 2-fold dechlorosilylation to provide a rigid rod nol. Ne2C(CE)(C.tpibond.C)3CGE4(C.tpibond.C)2CGE4(C.tpibond.C) 3CMe2(OB) (35) in which two 1,4-phenylene units interrupt an octayns scaffold. TI 133033-44-29 135033-64-39 135033-64-39

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of π -conjugated p-phenylene-bridged β -chloro silyl-substituted enymes as precursors for arylene-containing polyyne mol.

- RN 1191093-44-3 CAPLUS
- CN INDEX NAME NOT YET ASSIGNED

Double bond geometry as shown.

RN 1191093-45-4 CAPLUS

CN INDEX NAME NOT YET ASSIGNED

Double bond geometry as shown.

$$\underset{\text{Me}}{\text{Ne}} \overset{\text{OH}}{\text{OH}} \overset{\text{Cl}}{\text{E}} \overset{$$

RN 1191093-46-5 CAPLUS

CN 5-Octene-3,7-diyn-2-ol, 8,8'-(1,3-butadiyne-1,4-diyldi-4,1-phenylene)bis[5-chloro-6-[(1,1-dimethylethyl)diphenylsilyl]-2-methyl-, (5E,5'E)- (CA

INDEX NAME)

Double bond geometry as shown.

$$M_{\text{Me}} \stackrel{\text{CB}}{=} C_{\text{L}} \stackrel{\text{C1}}{=} C_{\text{L}} \stackrel{\text{C2}}{=} C_{\text{L}} \stackrel{\text{C1}}{=} C_{\text{L}} \stackrel{\text{C2}}{=} C_{\text{L}} \stackrel{\text{C2}}{=} C_{\text{L}} \stackrel{\text{C2}}{=} C_{\text{L}} \stackrel{\text{C3}}{=} C_{\text{L}} \stackrel{\text{C4}}{=} C_{\text{L$$

PAGE 1-B

PAGE 1-A

IT 1191093-33-0P 1131033-41-0P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of m-conjugated p-thenylene-bridged \$\theta\$-chloro sily1-substituted enymes as precursors for arylene-containing polygne mol. wires)

- RN 1191093-33-0 CAPLUS
- CN Benzene, 1,4-bis[(3E)-4-chloro-3-[(1,1-dimethylethyl)diphenylsilyl]-6-(trimethylsilyl)-3-hexene-1,5-diyn-1-yl]- (CA INDEX NAME)

Double bond geometry as shown.

- RN 1191093-41-0 CAPLUS
- CN Benzene, 1,1'-(1,3-butadiyne-1,4-diyl)bis[4-[(3E)-4-chloro-3-[(1,1-dimethylethyl)diphenylsilyl]-6-(trimethylsilyl)-3-hexene-1,5-diyn-1-yl]-(CA INDEX NAME)

PAGE 1-B

60 THERE ARE 60 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 15 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2005:1004691 CAPLUS Full-text

DOCUMENT NUMBER: 143:306181

Process for preparation of π -conjugated aromatic TITLE:

ring-containing acetylene derivatives as organic electroluminescent devices

INVENTOR(S): Sato, Fumie; Takayama, Yuuki PATENT ASSIGNEE(S):

Nissan Chemical Industries, Ltd., Japan SOURCE:

PCT Int. Appl., 82 pp.

CODEN: PIXXD2 DOCUMENT TYPE: Patent LANGUAGE: Japanese FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION:

| PATENT NO. | | | KIND DATE | | | | | APPLICATION NO. | | | | | | DATE | | | | |
|------------|--------|----------------|-----------|-------------------|-----|-----|-----------------|-----------------|-----|-------------------|------|----------------------------|----------------------------|----------|----------------------------|----------------------------|-------------------|----|
| | | | | | | - | | | | | | | | | - | | | |
| W | 2005 | 0851 | 76 | | Al | | 2005 | 0915 | | WO 2 | 005- | JP39 | 50 | | 2 | 0050 | 308 | |
| | W: | ΑE, | AG, | \mathbb{AL}_{r} | AM, | AT, | AU, | AZ, | BA, | BB, | BG, | ${\tt BR}_{\rm r}$ | ${\tt BW_r}$ | ΒY, | \mathbb{BZ}_{r} | $\mathtt{CA}_{\mathbf{r}}$ | CH, | |
| | | CN, | 00, | CR, | CU, | CZ, | DΞ, | DK, | DM, | \mathbb{DZ}_{I} | EC, | $\mathbb{E}\mathbb{E}_{t}$ | EG, | ES, | \mathbb{FI}_t | GB, | GD, | |
| | | GΞ, | GH, | GM, | HR, | HU, | ID, | IL, | IN, | IS, | JP, | ΚΞ, | KG, | K₽, | $\mathtt{KR}_{\mathbf{r}}$ | KZ_{r} | LC, | |
| | | lK, | LR, | LS, | LT, | LU, | LV, | MA, | MD, | MG, | MK, | $\mathbb{M} \mathbb{N}_r$ | $\mathbb{M}\mathbb{W}_{r}$ | MX_{t} | \mathbb{MZ}_{r} | NA_t | NI, | |
| | | NO, | NZ, | CM, | PG, | PH, | PL, | PT, | RO, | RU, | SC, | \mathbb{SD}_{r} | SE, | SG, | SK, | SL, | SM, | |
| | | SY, | TJ, | TM, | IN, | TR, | II, | TZ, | UA, | UG, | US, | UZ, | VC, | W, | YU, | ZA_{r} | ZM, | ZW |
| | RW: | ΒW, | GH, | GM, | KΕ, | LS, | \mathbb{MW}_r | MZ, | NA, | SD, | SL, | SZ, | TZ_{r} | UG, | \mathbb{ZM}_r | ZW, | AM, | |
| | | AZ, | ΒY, | KG, | KZ, | MD, | RU, | IJ, | TM, | AT, | BΞ, | BG, | CH, | CY, | \mathbb{CZ}_{r} | DE, | DK, | |
| | | EE, | ES, | FI, | FR, | GB, | GR, | ΗU, | ΙE, | IS, | IT, | LT_{I} | LU, | MC, | \mathtt{NL}_{t} | $\mathtt{PL}_{\mathbf{r}}$ | PT, | |
| | | RO, | SE, | SI, | SK, | TR, | BF, | BJ, | CF, | CG, | CI, | ${\rm CM}_{I}$ | \mathtt{GA}_{I} | GN, | GQ, | GW, | \mathtt{ML}_{I} | |
| | | $\mathbb{MR},$ | ΝE, | SN, | TD, | ΤG | | | | | | | | | | | | |
| U: | 3 2007 | 0176 | 164 | | A1 | | 2007 | 0802 | | US 2 | 007- | 5919 | 50 | | 2 | 0070 | 307 | |
| PRIORI' | TY APP | LN. | INFO | . : | | | | | | JP 2 | 004- | 6544 | 6 | | A 2 | 0040 | 309 | |

WO 2005-JP3950 W 20050308

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OTHER SOURCE(S): MARPAT 143:306181

$$i - \Pr = \frac{\delta_1}{\delta_1} \underbrace{\bigcap_{b=1}^{Pr-1} \mathbb{C}}_{S} - \underbrace{\bigcap_{a=p}^{Pr-a} \mathbb{C}}_{a-p} \underbrace{\bigcap_{b=1}^{Pr-a} \mathbb{C}}_{S} - \underbrace{\bigcap_{b=1}^{Pr-a} \mathbb{C}}_{S} = \underbrace{\bigcap_{b=1}^{Pr-a} \mathbb{C}}_$$

AB This invention pertains to a method for producing m-conjugated aromatic ringcontaining acetylene derivs, via coupling reaction in the presence of palladium and Cu(I) catalysts. For example, the compound I was prepared in a multi-step synthesis in good yield. The title compds. are useful as electroluminescent devices.

IT 864684-31-19 864684-31-19 RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; preparation of m-conjugated aromatic ring-containing acetylene

derivs. as organic electroluminescent devices)

RN 864684-31-1 CAPLUS

CN Benzenamine, N-[4-[(3E)-3,4-dipropyl-6-[4-[2-[tris(1methylethyl)silyl]ethynyl]phenyl]-3-hexene-1,5-diyn-1-yl]phenyl]-4-[(3E)-3propyl-4-[2-[4-[2-[tris(1-methylethyl)silyl]ethynyl]phenyl]ethynyl]-3hepten-1-yn-1-yl]-N-[4-[(3E)-3-propyl-4-[2-[4-[2-[tris(1methylethyl)silyl]ethynyl]phenyl]ethynyl]-3-hepten-1-yn-1-yl]phenyl]- (CA INDEX NAME)

PAGE 1-B PAGE 1-B

RN 864684-32-2 CAPLUS

CN Benzenamine, N-[4-[(3E)-5-ethyl-4-[2-(4-ethynylphenyl)ethynyl]-3-propyl-3-penten-1-yn-1-yl])benyl]-4-[(3E)-4-[2-(4-ethynylphenyl)ethynyl]-3-propyl-3-hepten-1-yn-1-yl]-N-[4-[(3E)-4-[2-(4-ethynylphenyl)ethynyl]-3-propyl-3-hepten-1-yn-1-yl]-benyl]- (CA INDEX NAME)

Double bond geometry as shown.

IT 864684-31-99 BCACC4-11-04 R6484-23-1P BC4CE4-24-27 864684-25-39 864684-05-42 BC4CE4-27-39 864684-28-69 864684-09-79 864684-30-09 864684-33-39

RL: DEV (Device component use); INF (Industrial manufacture); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(preparation of $\pi\mbox{-conjugated}$ aromatic ring-containing acetylene derivs, as organic

- electroluminescent devices)
- RN 864684-21-9 CAPLUS
- CN Thiophane, 2-[38]-3,4-dipropyl-6-[4-[38]-3-propyl-4-[2-[5-[2-[tris(1-methylethyl)silyl]ethynyl]-2-thianyllethynyl]-3-hepten-1-yn-1-yllphanyl]-3-hexene-1,5-diyn-1-yl]-5-[2-[tris(1-methylethyl)silyl]ethynyl]- (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A

PAGE 1-B

- RN 864684-22-0 CAPLUS
- CN Benzene, 1-[(3E)-3,4-dipropyl-6-[4-[2-[tris(1-

methylethyl)silyl]ethynyl]phenyl]-3-hexene-1,5-diyn-1-yl]-4-[(3E)-3-propyl-4-[2-[4-[2-[tris(1-methylethyl)silyl]ethynyl]phenyl]ethynyl]-3-hepten-1-yn-1-yl]- (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A

- RN 864684-23-1 CAPLUS
- CN Thiophene, 2-[(3E)-3,4-dipropyl-6-[4-[2-[tris(1-methylethyl)silyl]ethyyl]phenyl]-3-hevene-1,5-diyn-1-yl]-5-[(3E)-3-propyl-4-[2-[4-[2-[tris(1-methylethyl]silyl]ethyyl]phenyl]ethynyl]-3-hepten-1-yn-1-yl]- (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-B

- RN 864684-24-2 CAPLUS
- CN Silane, [oxybis[4,1-phenylene](3E)-3,4-dipropyl-3-hexene-1,5-diyne-6,1-diyl]-4,1-phenylene-2,1-ethynediyl]]bis[tris[1-nethylethyl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

- RN 864684-25-3 CAPLUS
- CN 2,2"-Bithiophene, 5-[(3E)-3,4-dipropyl-6-[4-[2-[tris[1-methy]sthy]]sthyy]]phenyl]-3-hexene-1,5-diym-1-yl]-5'-[(3E)-3-propyl-4-[2-[4-[2-[tris[1-nethylethyl]sily]]ethynyl]phenyl]ethynyl]-3-hepten-1-yn-1-yl]- (CA INDEX NAME)

- RN 864684-26-4 CAPLUS
- CN Naphthalene, 2-[38]-3,4-dipropyl-6-[4-[2-[tris[1-nethylethyl]sily]]ethynyl]phenyl]-3-bexene-1,5-diyn-1-yl]-6-[(35]-3-propyl-4-[2-[4-[2-[tris[1-nethylethyl]sily]]ethynyl]phenyl]ethynyl]-3-bepten-1-yn-1-yl]- (CA DIDEN NAWS)

Double bond geometry as shown.

PAGE 1-B

- RN 864684-27-5 CAPLUS
- CN Anthracene, 9-[(3E)-3,4-diproyl-6-[4-[2-[tris[]-methylethyl]sily]]ethynyl]phenyl]-3-bexene-1,5-diyn-1-yl]-10-[(3E)-3-proyl-4-[2-[4-[2-[tris[]-methylethyl]sily]]ethynyl]phenyl]ethynyl]-3-bexten-1-yn-1-yl]- (CR INDEX NAME)

Double bond geometry as shown.

- RN 864684-28-6 CAPLUS
- CN 2,1,3-Benzothiadiazole, 4-[(3E)-3,4-dipropyl-6-[4-[2-[tris(1-methylethyl)silyl]ethynyl]phenyl]-3-hexene-1,5-diya-1-yl]-7-[(3E)-3-propyl-4-[2-[4-[2-[tris(1-methylethyl)silyl]ethynyl]phenyl]ethynyl]-3-hepten-1-yn-

1-y1]- (CA INDEX NAME)

Double bond geometry as shown.

- RN 864684-29-7 CAPLUS
- CN Pyridazine, 3-[(3E)-3,4-dipropyl-6-[4-[2-[tris[1-methylethyl]sily]]ethylyl]ptenyl]-3-bexene-1,5-diyn-1-yl]-6-[(3E)-3-propyl-4-[2-[4-[2-[tris-t-thylethyl]silyl]ethylyl]ptenyl]ethylyl]-3-bepten-1-yn-1-yl]- (CA IDEX NAME)

Double bond geometry as shown.

PAGE 1-B

- RN 864684-30-0 CAPLUS
- CN Benzene, 1-[(3E)-3,4-dipropy1-6-[5-[2-[tris(1methylethyl siyl)]schynyl]phenyl]-3-bexene-1,5-diyn-1-y1]-3-[(3E)-5-ethyl-3-propy1-4-[2-[4-[2-[tris(1-arehylethyl]siyl]]ethynyl]phenyl]ethynyl]-3penten-1-yn-1-y1]-5-[(3E)-3-propy1-4-[2-[4-[2-[tris(1methylethyl]siyl]ethynyl]phenyl]ethynyl]-3-hepten-1-yn-1-y1]- (CA INDEX NAME)

PAGE 1-B

PAGE 1-A

- RN 864684-33-3 CAPLUS
- CN Benzenamine, N-[4-[(3E)-5-ethyl-4-[2-[4-[2-(4methoxyphenyl]ethynyl]phenyl]ethynyl]-3-propyl-3-penten-1-yn-1-yl]phenyl]- $4-[\,(3E)-4-[\,2-[\,4-[\,2-(\,4-netho\,xyphen\,y\,1\,)\,eth\,yn\,y\,1\,]\,phen\,y\,1\,]\,eth\,yn\,y\,1\,]-3-prop\,y\,1-2-prop\,y\,1-2-prop\,y\,1-2-prop\,y\,1-2-prop\,y\,1-2-prop\,y\,1-2-prop\,y\,1-2-prop\,y\,1-2-prop\,y\,1-2-prop\,y\,1-2-prop\,y\,1-2-prop\,y\,1-2-prop\,y\,1-2-p$ hepten-1-yn-1-y1]-N-[4-[(3E)-4-[2-[4-[2-(4
 - methoxyphenyl]ethynyl]phenyl]ethynyl]-3-propyl-3-hepten-1-yn-1-yl]phenyl]-(CA INDEX NAME)

Double bond geometry as shown.

REFERENCE COUNT: THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

14 ANSWER 3 OF 15 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2005:354187 CAPLUS Full-text

DOCUMENT NUMBER: 143:333 TITLE: Cytotoxicities, cell cycle and caspase evaluations of

1,6-diaryl-3(Z)-hexen-1,5-diynes, 2-(6-aryl-3(Z)-hexen-1,5-diynyl)anilines and their

derivatives

AUTHOR(S): Lin, Chi-Fong; Lo, Yu-Hsiang; Hsieh, Ming-Chu; Chen,

Yi-Hua; Wang, Jeh-Jeng; Wu, Ming-Jung

CORPORATE SOURCE: School of Chemistry, Kaohsiung Medical University, Kaohsiung, Taiwan

Bioorganic & Medicinal Chemistry (2005), 13(10),

3565-3575

CODEN: BMECEP; ISSN: 0968-0896

PUBLISHER: Elsevier Ltd. Journal

DOCUMENT TYPE: LANGUAGE: English OTHER SOURCE(S): CASREACT 143:333

SOURCE:

AB A series of compds, showed growth inhibition effects on a full panel of 60 human cancer cell lines, and most of the average IC50 values of the indicated analogs were from <0.01 to 96.6 µM, in which a 2-thienvl analog and the thioanisole analog revealed the highest cytotoxic activity with the cancer cell lines at 10-7M concentration range. During the cell cycle anal., a moderate to high apoptotic progress induction was shown by several compared with the control, which 2-(6-(2-thienyl)-3(Z)-hexen-1,5-diynyl)aniline (I) showed the highest apoptotic effect. I and the thioanisole analog displayed a significant G2/M phase arrest in the cell growth cycle compared with other derivs., which the proportions of the G2/M phase cells were accumulated to 71.5% and 82.6%, resp. Moreover, the colorimetric assay of the I and the thioanisole analog also provided advanced evidence to the relationship between the compds. and the caspase-3 enzyme, which was one of the major promoters of apoptotic effect.

IT 852619-13-72

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(cytotoxicities, cell cycle and caspase evaluations of

1,6-diaryl-3(Z)-hexen-1,5-diynes,

2-(6-aryl-3(Z)-hexen-1,5-diynyl)anilines and their derivs.) RN 852619-13-7 CAPLUS

CN Benzenamine, 2,2'-[1,4-phenylenedi-(3%)-3-hexene-1,5-diyne-6,1-diyl]bis-(9CI) (CA INDEX NAME)

Double bond geometry as shown.

15 THERE ARE 15 CAPLUS RECORDS THAT CITE THIS OS. CITING REF COUNT: RECORD (15 CITINGS)

REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 4 OF 15 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2005:17022 CAPLUS Full-text

DOCUMENT NUMBER: 142:113747

Preparation of aryl-substituted acyclic enedigne TITLE:

compounds as antitumor agents Wu, Ming-Jung; Lin, Chi-Fong INVENTOR (S) : PATENT ASSIGNEE(S): Kaohsiung Medical University, Taiwan

SOURCE: U.S. Pat. Appl. Publ., 41 pp.

CODEN: USXXCO DOCUMENT TYPE: Patent

LANGUAGE: English FAMILY

PATENT

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| | 2005 | 0004 | 212 | | A1
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2008 | 0106 | | US 2004-847667 | | | | | 20040518 | | | | |
| | 2570 | | | | A1 | | 2005 | | | CA 2004-2570366 | | | | | | 20040909 | | | |
| | 2005 | | 31 | | A2 | | 2005 | | | WO 2004-US29334 | | | | | | 20040909 | | | |
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RU 2341229
                        20081220 RU 2006-106621
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                         20090331
                                   CA 2004-2540119
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US 20060257822
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                         20061116
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                  A1 20071227 US 2007-893337
                                                          20070815
US 20070298371
                  A1 20071227 US 2007-893338
                                                          20070815
```

| US 20070298372 | A1 | 20071227 | US | 2007-893339 | | 20070815 |
|----------------------|----|----------|----|--------------|----|----------|
| US 20080072389 | A1 | 20080327 | US | 2007-894076 | | 20070820 |
| JP 2009183750 | A | 20090820 | JP | 2009-122362 | | 20090520 |
| JP 2009213908 | A | 20090924 | JP | 2009-122357 | | 20090520 |
| JP 2009183753 | A | 20090820 | JP | 2009-125481 | | 20090525 |
| IORITY APPLN. INFO.: | | | US | 2003-483887P | P | 20030630 |
| | | | US | 2003-501266P | P | 20030909 |
| | | | US | 2004-832168 | A | 20040426 |
| | | | US | 2004-842302 | A | 20040510 |
| | | | US | 2004-847429 | A | 20040517 |
| | | | US | 2004-847667 | | 20040518 |
| | | | US | 2004-887644 | | 20040709 |
| | | | US | 2004-887667 | | 20040709 |
| | | | | 2004-888206 | | 20040709 |
| | | | | 2006-524962 | | 20040909 |
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| | | | | 2006-106621 | | 20040909 |
| | | | | 2004-US29334 | | 20040909 |
| | | | | 2004-US29335 | | 20040909 |
| | | | | 2004-US29336 | W | 20040909 |
| | | | | 2004-US29337 | | 20040909 |
| | | | | 2004-US29338 | W | 20040909 |
| | | | US | 2006-488204 | A1 | 20060718 |

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT CTHER SOURCE(S): MARPAT 142:113747

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PR

AB This invention provides aryl-substituted acyclic enediyne compds. of formula (I) or pharmaceutically acceptable salts or solvates thereof (wherein R1 = Z2 = H8 or R1 and R2 topecher form a noisety represented by the formula Q or Q1; R3 = (un)substituted C4-30 alkyl or C3-30 aryl; R4 = (un)substituted C3-30 aryl; with the proviso that R3 is not Bu; pentyl, tetrahydropyranyloxymethyl, tetrahydropyranyloxymethyl or Ph when R1 = Z2 = H and R4 = o-vapanopertyl; and with the proviso that R3 is not Bu when R1 = R2 = H and R4 = Ph). These compds. found to have inhibitory activities against topoisomerase I or act as a S phase or G2/M phase blocker and were also tested in vitro in anticancer assay. 4-((Z1-3-Dodecen-1,5-diyyn)1-j-trifluoromethylbenzene and 2-((Z)-3-dodecen-1,5-diyyn)1)pyrazine showed ICSO of 4.32 and 5.93 µg/m2 against human solid tumor K3 cells.

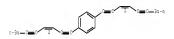
IT 457914-65-79

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Nees)

(preparation of aryl-substituted acyclic enediyne compds. as antitumor agents, topoisomerase I inhibitors, or S phase or G2/M phase blockers)

RN 457914-65-7 CAPLUS

Double bond geometry as shown.



REFERENCE COUNT:

39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 5 OF 15 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2005:15944 CAPLUS Full-text DOCUMENT NUMBER: 142:113746

TITLE: Preparation of aryl-substituted acyclic enediyne

compounds as antitumor agents and pharmaceutical compositions comprising them INVENTOR(S): Wu, Ming-Jung; Lin, Chi-Fong

PATENT ASSIGNEE(S): Kaohsiung Medical University, Taiwan SOURCE: U.S. Pat. Appl. Publ., 41 pp.

CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2 PATENT INFORMATION:

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RII 2322215
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RU 2329007
                  C2 20080720 RU 2006-106622
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RU 2336846
                  C2 20081027 RU 2006-106623
                                                           20040909
RU 2341229
                  C2 20081220 RU 2006-106621
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RU 2352321
                  C2 20090420 RU 2006-106392
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C1 20090927 RU 2008-106521

20040909

RU 2368349

WO 2005023144 A3 20050512

| MX 2006002703 | A | 20060606 | MX | 2006-2703 | | 20060309 |
|------------------------|--------|--------------|----|--------------|----|----------|
| MX 2006002704 | A | 20060606 | MX | 2006-2704 | | 20060309 |
| MX 2006002706 | A | 20060606 | MX | 2006-2706 | | 20060309 |
| MX 2006002707 | A | 20060606 | MX | 2006-2707 | | 20060309 |
| MX 2006002705 | A | 20060904 | MX | 2006-2705 | | 20060309 |
| IN 2006DN01961 | A | 20070810 | IN | 2006-DN1961 | | 20060410 |
| IN 2006DN01963 | A | 20070810 | IN | 2006-DN1963 | | 20060410 |
| IN 2006DN01964 | A | 20070810 | IN | 2006-DN1964 | | 20060410 |
| IN 2006DN01965 | A | 20070810 | IN | 2006-DN1965 | | 20060410 |
| US 20060257822 | A1 | 20061116 | US | 2006-488204 | | 20060718 |
| US 20070298370 | A1 | 20071227 | US | 2007-893337 | | 20070815 |
| US 20070298371 | A1 | 20071227 | US | 2007-893338 | | 20070815 |
| US 20070298372 | A1 | 20071227 | US | 2007-893339 | | 20070815 |
| US 20080072389 | A1 | 20080327 | US | 2007-894076 | | 20070820 |
| JP 2009183750 | A | 20090820 | JP | 2009-122362 | | 20090520 |
| JP 2009183753 | A | 20090820 | JP | 2009-125481 | | 20090525 |
| PRIORITY APPLN. INFO.: | | | US | 2003-483887P | P | 20030630 |
| | | | US | 2003-501266P | Р | 20030909 |
| | | | US | 2004-832168 | A | 20040426 |
| | | | US | 2004-842302 | Α | 20040510 |
| | | | US | 2004-847429 | Α | 20040517 |
| | | | US | 2004-887644 | Α | 20040709 |
| | | | US | 2004-887667 | Α | 20040709 |
| | | | | 2004-888206 | A | 20040709 |
| | | | | 2006-524963 | A3 | 20040909 |
| | | | | 2006-524964 | | 20040909 |
| | | | | 2006-106621 | A3 | 20040909 |
| | | | | 2004-US29334 | W | 20040909 |
| | | | | 2004-US29335 | W | 20040909 |
| | | | | 2004-US29336 | W | 20040909 |
| | | | | 2004-US29337 | W | 20040909 |
| | | | | 2004-US29338 | W | 20040909 |
| | | | US | 2006-488204 | A1 | 20060718 |
| OTHER SOURCE (S): | MARDAT | 142 - 113746 | | | | |

OTHER SOURCE(S): MARPAT 142:113746

AB A pharmaceutical compns. comprises aryl-substituted acyclic enediyne compds. of formula (I) or pharmaceutically acceptable salts thereof (wherein R1 = R2 = H; or R1 and R2 together form a moiety represented by the formula Q or Q1; R3 = (un) substituted C4-30 alkyl or C3-30 aryl; R4 = (un) substituted C3-30 aryl; with the proviso that R3 is not Bu, pentyl, tetrahydropyranyloxymethyl, tetrahydropyranyloxypropyl or Ph when R1 = R2 = H and R4 = o-cyanophenyl; and with the proviso that R3 is not Bu when R1 = R2 = H and R4 = Ph). The pharmaceutical composition is used to treat a subject afflicted with a tumor/cancer by inhibiting topoisomerase I activities or blocking the S phase or G2/M phase of the tumor/cancer cells. The tumor/cancer cell is selected from leukemia cancer cells, non-small-cell lung cancer cells, col on cancer

cells, CNS cancer cells, melanoma cancer cells, ovarian cancer cells, renal cancer cells, prostate cancer cells and breast cancer cells. These compds. were tested in vitro for inhibitory activities against topoisomerase I, cell cycle at a S phase or G2/M phase blocker, and anticancer growth. For example, 4-((Z)-3-Dodecen-1,5-diynyl)-1-trifluoromethylbenzene and 2-((Z)-3-dodecen-1,5-diynyl)pyrazine showed IC50 of 4.32 and 5.93 µg/mL against human solid tumor KB cells.

TT 457314-85-70

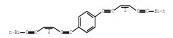
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES

(preparation of arv1-substituted acvclic enedivne compds, as antitumor agents, topoisomerase I inhibitors, or S phase or G2/M phase blockers)

RN 457914-65-7 CAPLUS

CN Benzene, 1,4-di(3Z)-3-decene-1,5-diyn-1-yl- (CA INDEX NAME)

Double bond geometry as shown.



OS.CITING REF COUNT: THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD

(4 CITINGS)

L4 ANSWER 6 OF 15 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2004:480115 CAPLUS Full-text

DOCUMENT NUMBER: 141:190674

TITLE: Synthesis of Conjugated Oligomers Having Aromatic and Enedivne Units Alternately in the Backbone that Show

Intense Fluorescence Emission AUTHOR(S):

Nakano, Yuuki; Ishizuka, Kenichi; Muraoka, Kenji;

Ohtani, Hiroyuki; Takayama, Yuuki; Sato, Fumie Department of Biomolecular Engineering, Tokyo CORPORATE SOURCE:

Institute of Technology, Midori, Yokohama, Kanagawa,

226-8501, Japan

SOURCE: Organic Letters (2004), 6(14), 2373-2376

CODEN: ORLEF7; ISSN: 1523-7060

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 141:190674

$$(\text{Me}_2\text{CH})_3\text{SI} + C = C + X - C = C + X + C = C + X - C = C + X + C + X + C = C + X + C +$$

- AB Synthesis and fluorescence properties of x-conjugated compds. I (n = 1 3; X = 1,4-phenylene, 2,5-pyridine, 2,5-thiophene; R = n-Pr, m-Bu) having alternately an aromatic or heteroarom. ring and an eneciyme unit in the backbone are described.
- IT 740810-61-1F 740810-62-2P

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and absorption and fluorescence spectra of conjugated oligomers $% \left\{ 1,2,\ldots,n\right\}$

having aromatic (or heteroarom.) and enedigne units alternately in the backbone)

- RN 740810-61-1 CAPLUS
- CN 3-Butyn-2-ol, 2-methyl-4-[4-[3E)-3-propyl-4-[2-[4-[2-[tris(1-methyl)ethyl)silyl]ethynyl]phenyl]ethynyl]-3-hepten-1-yn-1-yl]phenyl]- (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-B

- RN 740810-62-2 CAPLUS
- CN 3-Butyn-2-o1, 2-methyl-4-[4-[(3E)-3-propyl-4-[[4-[(3E)-3-propyl-4-[[4-[[tris(1-methylethyl)silyl]ethynyl]phenyl]ethynyl]-3-hepten-1-yn-1yl]phenyl]ethynyl]-3-hepten-1-yn-1-yl]phenyl]- (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-B

II 740810-63-39

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and absorption and fluorescence spectra of conjugated olicomers

having aromatic (or heteroarom.) and enedigne units alternately in the backbone)

- RN 740810-63-3 CAPLUS
- CN 3-Butyn-2-ol, 2-methyl-4-[4-[(3E)-3-propyl-4-[[4-[(3E)-3-propyl-4-[[4-[(3E)-3-propyl-4-[[4-[[tris(1-methyle:thyl)sily]]benyl]benyl]benyl]-3hepten-1-yn-1-yl]phenyl]ethynyl]-3-hepten-1-yn-1-yl]phenyl]ethynyl]-3hepten-1-yn-1-yl]phenyl]- (CA INDEX INME)

Double bond geometry as shown.

PAGE 1-A

PAGE 1-B

PAGE 1-C



[(trimethylsilyl)ethynyl]-, (6E)- (9CI) (CA INDEX NAME)

THERE ARE 20 CAPLUS RECORDS THAT CITE THIS OS.CITING REF COUNT: precent (20 etertice)

REFERENCE COUNT: THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS

RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 7 OF 15 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2004:328526 CAPLUS Full-text

DOCUMENT NUMBER: 141:54000

TITLE: Solid-phase synthesis of oligo(triacetylene)s and

oliqo(phenylenetriacetylene)s employing Sonogashira and Cadiot-Chockiewicz-type cross-coupling reactions Utesch, Nils F.; Diederich, Francois; Boudon, Corinne; AUTHOR(S): Gisselbrecht, Jean-Paul; Gross, Maurice

CORPORATE SOURCE: Laboratorium fuer Organische Chemie, ETH-Hoenggerberg,

HCI, Zurich, CH-8093, Switz.

SOURCE: Helvetica Chimica Acta (2004), 87(3), 698-718

CODEN: HCACAV; ISSN: 0018-019X Verlag Helvetica Chimica Acta

DOCUMENT TYPE: Journal English LANGUAGE:

PERLISHER:

OTHER SOURCE(S): CASREACT 141:54000

AB The polymer-supported synthesis of poly(triacetylene)-derived monodisperse oligomers is described, using PdO-catalyzed Sonogashira and Cadiot-Chodkiewicz-type cross-couplings as the key steps in the construction of the acetylenic scaffolds. Merrifield resin functionalized with a 1-(4iodoaryl)triazene linker was chosen as the polymeric support. The linker

selection was made based on the results of several model studies in the liquid

phase. For the solid-support synthesis of p-

I[C6H4C.tplbond.CC(CH2OSiMe2CNe3):C(CH2OSiMe2CNe3)C.tplbond.C]nSiNe3 [I, n = 2-4] a set of only three reactions was required: (i) PdO-catalyzed Sonogashira cross-coupling, (ii) Me3Si-alkyne deprotection by protodesilylation, and (iii) cleavage of the linker with liberation of I. The longest-wavelength absorption maxima of I [n = 1-4] shift bathochromically with increasing oligomeric length, from λ max 337 nm (I, n = 1) to 384 nm (I, n = 4). Based on the electronic absorption data, the effective conjugation length (ECL) of the oligo(phenylene triacetylene)s is estimated to involve at least four monomer units and 40 C-atoms. #-Electron conjugation in these oligomers is less efficient than in

Me3Si[C6H4C.tplbond.CC(CH2OSiMe2CMe3):C(CH2OSiMe2CMe3)C.tplbond.C] nSiMe3 (II) due to poor transmittance of m-electron delocalization by the Ph rings inserted into the oligomeric backbone. Similar conclusions were drawn from the electrochem, properties of the two oligomeric series as determined by cyclic (CV) and rotating-disk voltammetry. In sharp contrast to II, I are strongly fluorescent, with the highest quantum yield $\Phi F = 0.69$ measured for I [n = 3]. Whereas the Sonogashira cross-coupling on solid support proceeded smoothly, optimal conditions for alkyne-alkyne cross-coupling reactions employing PdO-catalyzed Cadiot-Chodkiewicz conditions still remain to be developed.

IT 354459-62-0P 554459-83-3P 354459-64-2P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (solid-phase synthesis of oligo(triacetylene)s and oligo(phenylenetriacetylene)s by Sonogashira and Cadiot-Chodkiewicz cross-coupling reactions)

RN 554459-62-0 CAPLUS

CN 4,9-Dioxa-3,10-disiladodec-6-ene, 6-[[4-[(3E)-3,4-bis[[[(1,1dimethylethyl)dimethylsilyl]oxy|methyl]-6-(4-jodophenyl)-3-hexene-1,5diynyl]phenyl]ethynyl]-2,2,3,3,10,10,11,11-octamethyl-7Double bond geometry as shown.

PAGE 1-B

PAGE 1-A

RN 554459-63-1 CAPLUS

CN 4,9-Dioxa-3,10-disiladodec-6-ene, 6-[[4-[(3E)-6-[4-[(3E)-3,4-bis[[[(1,1dimethylethyl)dimethylsilyl]oxy]methyl]-6-(4-iodophenyl)-3-hexene-1,5diynyl]phenyl]-3,4-bis[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]-3hexene-1,5-divnvl]phenvl]ethvnvl]-2,2,3,3,10,10,11,11-octamethvl-7-[(trinethylsilyl)ethynyl]-, (6E)- (9CI) (CA INDEX NAME)

PAGE 1-B

RN 554459-64-2 CAPLUS

CN 4,9-Dioxa-3,10-disiladodec-6-ene, 6-[[4-[(3E)-6-[4-[(3E)-3,4-bis[[[(1,1dimethylethyl)dimethylsilyl]oxy]methyl]-6-(4-iodophenyl)-3-hexene-1,5diynyl]phenyl]-3,4-bis[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]-3hexene-1,5-diynyl]phenyl]ethynyl]-7-[[4-[[3E]-3,4-bis[[[[1,1-dimethylethyl]dimethylsilyl]oxy]nethyl]-6-(trimethylsilyl)-3-hexene-1,5diynyl]phenyl]ethynyl]-2,2,3,3,10,10,11,11-octamethyl-, (6E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

II 764916-39-8P

RL: SPN (Synthetic preparation); PREP (Preparation) (solid-phase synthesis of oligo(triacetylene)s and oligo(phenylenetriacetylene)s by Sonogashira and Cadiot-Chodkiewicz cross-coupling reactions) RM 704916-29-0 CAPLUS

CN 4,9-Dioxa-3,10-disiladodec-6-ene, 6,6'-(1,4-phenylenedi-2,1ethynediyl)bis[7-[(4-iodophenyl)ethynyl]-2,2,3,3,10,10,11,11-octamethyl-, (6E,6°E)- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B



THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD OS CITING REF COUNT:

(6 CITINGS)

93 THERE ARE 93 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT:

RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 8 OF 15 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2003:592887 CAPLUS Full-text

DOCUMENT NUMBER: 140+20929

TITLE: Third-order nonlinear optical properties of

in-backbone substituted oligo(triacetylene)

chromophores

AUTHOR(S): Concilio, S.; Biaggio, I.; Gunter, P.; Piotto, S. P.; Edelmann, M. J.; Raimundo, J.-M.; Diederich, F.

CORPORATE SOURCE: Swiss Federal Institute of Technology, Institute of Quantum Electronics, Nonlinear Optics Laboratory,

ETH-Honggerberg, Zurich, CH-8093, Switz.

Journal of the Optical Society of America B: Optical

Physics (2003), 20(8), 1656-1660

CODEN: JOBPDE: ISSN: 0740-3224

PUBLISHER: Optical Society of America

DOCUMENT TYPE: Journal English

SOURCE:

AB A new approach to tuning the nonlinear optical properties of hybrid oligo(triacetylene) compds. was studied. The method is based on the insertion of a central heterospacer group between two (E)-hex-3-ene-1,5-diyne moieties. A significant increase in the 2nd hyperpolarizability y is expected if the central spacer fragment is an extended conjugated chromophore. The authors present mols. with enhanced 2nd hyperpolarizability caused by the presence of highly conjugated spacer groups, which increase the overall π -electron delocalization. Some metal complexes obtained from the coordination of these hybrid oligomers to transition-metal centers also were studied and revealed substantial differences in the capacities of the metal centers to act as electronic bridges. Finally, theor. predictions of the relative differences in the 2nd hyperpolarizabilities of the new spacer compds. are in good agreement with the exptl. results.

IT 628138-17-0 626736-19-2 628738-29-5

RL: PRP (Properties)

(third-order nonlinear optical properties of in-backbone substituted oligo(triacetylene) chromophores)

RN 628738-17-0 CAPLUS

CN Quinoxaline, 5,8-bis[3,4-bis[[[(1,1-

dimethylethyl)dimethylsilyl]oxy]methyl]-6-(triethylsilyl)-3-hexene-1,5diynyl] - (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-A

RN 628738-19-2 CAPLUS

CN Quinoxaline, 5,8-bis[3,4-bis[[[(1,1-

dimethylethyl)dimethylsilyl]oxy]methyl]-6-(triethylsilyl)-3-hexene-1,5-

diyn-1-y1]-2,3-diphenyl- (CA INDEX NAME)

PAGE 1-A

- RN 628738-20-5 CAPLUS
- CN Dipyrido[3,2-a:2',3'-c]phenazine, 10,13-bis[3,4-bis[[[(1,1-dinethylethyl)dimethylsilyl]cxy]methyl]-6-(triethylsilyl)-3-hexene-1,5-diynyl]- (9CI) (CA INDEX NAME)

CS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD
(4 CITINGS)

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS
RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

14 ANSWER 9 OF 15 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2003:234291 CAPLUS $\underline{\text{Full-text}}$

DOCUMENT NUMBER: 139:85055
TITLE: Acetylenic

Acetylenic scaffolding on solid support: Poly(triacetylene)-derived oligomers by Sonogashira and Cadiot-Chodkiewicz-type cross-coupling reactions

AUTHOR(S): Utesch, Nils F.; Diederich, François

CORPORATE SOURCE: Laboratorium fur Organische Chemie, ETH-Honggerberg,

HCI, Zurich, CH-8093, Switz.

SOURCE: Organic & Biomolecular Chemistry (2003), 1(2), 237-239 CODEN: OBCRAK; ISSN: 1477-0520

PUBLISHER: Royal Society of Chemistry

DOCUMENT TYPE: Journal
LANGUAGE: English
CTHER SOURCE(S): CASREACT 139:85055

- AB Synthesis of polytriacetylene)-derived oligomers by Pd(0)-catalyzed Sonogashira and Cadiot-Chodkiewicz-type cross-coupling reactions on solid support is reported. Oligo(phenylene triacetylene)s, e.g., I[4-CSHC.tplbond.CCR.tplbord.C[nSiMa (R = CRCSISMtMa/, n = 1, 2, 3, 4) members of a new class of linearly x-conjugated oligomers with all-C backbones, feature very high fluoresence intensities.
- II \$54459-62-00 \$54459-62-10 \$64459-64-26
 R1: FR0 [Properties]: SRN [Synthetic preparation]: FRED [Preparation]
 (electronic absorption and eclasion, WVIVIS spectra;
 poly(triacetylene)-derived oligomers are prepared by Sonogashira and
 Cadiot-Choddievicz-type Pd-catalyzed cross-coupling reactions)
 RN \$54459-62-0 CAPLUS
- CN 4,9-Dioxa-3,10-disiladodec-6-ene, 6-[[4-[[3E]-3,4-bis][[[1,1-dimethylethyl]dimethylsiy]lowy]nethyl]-6-[4-iotophenyl]-3-hexene-1,5-diynyl]phenyl]ethynyl]-2,2,3,3,10,10,11,11-octamethyl-7-[[trimethylsiy]ethynyl]-, (6E)-[9CI] (OA INDEX NAME)

****I

- RN 554459-63-1 CAPLUS
- CN 4,9-Dioxa-3,10-disiladodec-6-ene, 6-[[4-[(3E)-6-[4-[(3E)-3,4-bis:[[(1,1-disethylethyl-disethyl-siy]-0,4-bexne-1,5-diynyl]phenyl]-3,4-bis:[[(1,1-disethylethyl-disethyl-siy]-1]-3,4-bexne-1,5-diynyl]phenyl]-shpyll-shpynyl]-1,2,3,3,10,10,11,11-octanethyl-7-[(trinethyl-siyl)]-1,605-[(6D)-(6D)-(CA)-DIOCK NAME)

Double bond geometry as shown.

- RN 554459-64-2 CAPLUS
- CM 4,9-Dioxa-3,10-disiladodec-6-ene, 6-[[4-[(3E)-6-[4-[(3E)-3,4-bis][[(1,1-disethylethyl)dinethylsily]]oxy]nethyl1-6-(4-iodoparyl)-3-hexene-1,5-diyxyl]phenyl]-3,4-bis[[([1,1-disethylethyl]dinethylsily]]oxy]nethyl]-3-hexene-1,5-diyxyl]phenyl]ethyvyl]ethyvyl]-7-[4-[(3E)-3,4-bis[[([1,1-disethylsily]]oxy]nethyl]-6-(trinethylsily])-3-hexene-1,5-diyxyl]phenyl]ethyvyl]-2,2,3,3,10,10,11,11-octamethyl-, (6E)- (9CI) (CA IDDEX NAME)

PAGE 1-B PAGE 1-B

IT \$54453-71-709, Merrifield resin-supported \$54453-73-309, Merrifield resin-supported \$54459-73-309

, Merrifield resin-supported

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and Sonogashira and Cadiot-Chodkiewicz-type Pd-catalyzed cross-coupling reactions of supported poly(triacetylene)-derived oligomers)

- RN 554459-71-1 CAPLUS
- CN Ethanol, 2-[3-[4-[(3E)-6-[4-[(3E)-3,4-bis][[(1,1dimethylethyl)dimethylsilyllowy]methyl]-6-[trimethylsilyl]-3-hexene-1,5diyn-1-yl]phenyl]-3,4-bis[[[(1,1-dimethylethyl]dimethylsilyl]lowy]methyl]-3hexene-1,5-diyn-1-yl]phenyl]-1-ethyl-2-triazen-1-yl] (CA INGEX MAME)

Double bond geometry as described by E or Z.

- RN 554459-72-2 CAPLUS
- CN Ethanol, 2-[3-[4-[48]-6-[4-[38]-6-[4-[38]-3-4-bis[[[4],2-disethylethyl]dimethylsily]]-6-[4-[38]-3-4-bis[[[4],2-disethylethyl]dimethylsily]]-3-hexene-1,5-diyn-1-yl]phenyl]-3-4-bis[[[4],1-disethylethyl]dimethylsily]loxy]nethyl]-3-hexene-1,5-diyn-1-yl]phenyl]-3-bis[[4],1-disethylethyl]dimethylsily]loxy]nethyl]-3-hexene-1,5-diyn-1-yl]phenyl]-1-ethyl-2-trizen-1-yl]- (CA INDEX INDEX)

Double bond geometry as described by E or Z.

PAGE 1-B PAGE 1-B

RN 554459-73-3 CAPLUS

CN Ethanol, 2-[3-[4-[(3E)-6-[4-[(3E)-6-[4-[(3E)-6-[4-[(3E)-3,4-bis[[[(1,1-direthylethyl)dishtylsily]loxy]nethyl]-6-[trinethylsily]]-3-hexene-1,5-diyn-1-yl]phenyl]-3,4-bis[[([1,1-dinethylethyl]dinethylsily]loxy]nethyl]-3-hexene-1,5-diyn-1-yl]phenyl]-3,4-bis[[([1,1-dinethylethyl]dinethylsily]loxy]nethyl]-3-hexene-1,5-diyn-1-yl]phenyl]-3,4-bis[[([1,1-dinethylethyl]dinethylsily]loxy]nethyl]-3-hexene-1,5-diyn-1-yl]phenyl]-1-ethyl-2-triazen-1-yl]- (C. NORE NORE)

Double bond geometry as described by ${\mathbb E}$ or ${\mathbb Z}.$

PAGE 1-C

CS.CITING REF COUNT: 18 THERE ARE 18 CAPLUS RECORDS THAT CITE THIS

RECORD (18 CITINGS)

REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 10 OF 15 CAPLUS COPYRIGHT 2009 ACS On STN ACCESSION NUMBER: 2002:719354 CAPLUS Full-text

DOCUMENT NUMBER: 138:25161

TITLE: Third-order nonlinear optical properties of

in-backbone substituted conjugated polymers

AUTHOR(S): Gubler, U.; Concilio, S.; Bosshard, Ch.; Biaggio, I.;

Gunter, P.; Martin, R. E.; Edelmann, M. J.; Wytko, J.

A.; Diederich, F.

CORPORATE SOURCE: Institute of Quantum Electronics, ETH-Honggerberg,

Zurich, CH-8093, Switz.

SOURCE: Applied Physics Letters (2002), 81(13), 2322-2324

CODEN: APPLAB; ISSN: 0003-6951

PUBLISHER: American Institute of Physics

DOCUMENT TYPE: Journal

LANGUAGE: English

AB An alternative approach for tuning of the third-order nonlinear optical properties of organic mols. is based on insertion a functional group into the path of the r-electron conjugation instead of at chain ends. This scheme enhances the second-order hyperpolarizability for short mols, but in two instances where such mols, were polymerized into longer mols. the overall hyperpolarizability was lower. The study is based on tert-butyldimethylsiloxy-vinyl-polytriacetylene) as the basic linear conjugated polymer, with spacer of anthracene, benzeme, naphthalene, thiophene,

tetramethylbenzene, furan tetrafluorobenzene, pyridine, biphenyl, pyrazine, and bis(triethylphosphine-Pt).

IT 249616-79-3 349616-83-3,

9,10-Bis[(E)-3,4-bis[[(tert-butyl)dimethylsilyloxy]methyl]-6-(trimethylsilyl)-hex-3-ene-1,5-diynyl]anthracene 243616-84-0 243616-87-3, 1,4-Bis[(E)-3,4-bis[[(tert-

butyl)dimethylsilyloxy]methyl]-6-(trimethylsilyl)-hex-3-ene-1,5-diynyl]-2,3,5,6-tetramethylbenzene

RL: PRP (Properties)

(role of in-backbone spacer on third-order nonlinear optical properties of polyacetylene conjugated polymers)

RN 249616-79-3 CAPLUS

CN 4,9-Dioxa-3,10-disiladodec-6-ene, 6,6'-(1,4-phenylenedi-2,1-ethynediyl)bis[2,2,3,3,10,10,11,11-octamethyl-7-[(trimethylsilyl)ethynyl]-, (6E,6'E)-(9CI) (CA INDEX NAME)

Double bond geometry as shown.

RN 249616-83-9 CAPLUS

CN 4,9-Dioxa-3,10-disiladodec-6-ene, 6,6'-(9,10-anthracenediyldi-2,1-ethynediyl)bis[2,2,3,3,10,10,11,11-octamethyl-7-[(trimethylsilyl)ethynyl]-, (6E,6'E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

RN 249616-84-0 CAPLUS

CN 4,9-Dioxa-3,10-disiladodec-6-ene, 6,6'-[(2,3,5,6-tetrafluoro-1,4-phenylene)di-2,1-ethynediyl]bis[2,2,3,3,10,10,11,11-octamethyl-7-[(trimethylsilyl)ethynyl]-, (6E,6'E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

RN 249616-87-3 CAPLUS

CN 4,9-Dioxa-3,10-disiladodec-6-ene, 6,6'-[(2,3,5,6-tetramethyl-1,4-phenylene)di-2,1-ethynediyl]bis[2,2,3,3,10,10,11,11-octamethyl-7-[(trimethylsilyl)ethysyl]-, (6E,6'E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

OS.CITING REF COUNT: 15 THERE ARE 15 CAPLUS RECORDS THAT CITE THIS

RECORD (15 CITINGS)

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

RECORD, ALL CITATIONS AVAILABLE IN TH

14 ANSWER 11 OF 15 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2002:700080 CAPLUS Full-text

DOCUMENT NUMBER: 138:247934

TITLE: Cytotoxicities and topoisomerase I inhibitory

activities of 2-[2-(2-

alkynylphenyl) ethynyl]benzonitriles,

1-aryldec-3-ene-1,5-diynes, and related

bis(enediynyl)arene compounds

Lin, Chi-Fong; Lu, Wen-Der; Hsieh, Pei-Chen; Kuo, ATTITIOR (S) .

Yao-Haur; Chiu, Huev-Fen; Wang, Chvi-Jia; Wu,

Ming-Jung

CORPORATE SOURCE: School of Chemistry, Kaohsiung Medical University,

Kaohsiung, Taiwan

Helvetica Chimica Acta (2002), 85(8), 2564-2575 SOURCE:

CODEN: HCACAV: ISSN: 0018-019X Verlag Helvetica Chimica Acta PUBLISHER:

DOCUMENT TYPE: Journal LANGUAGE: English CASREACT 138:247934 OTHER SOURCE(S):

AB The activities of a series of acyclic enedignes, 2-(6-substituted hex-3-ene-1,5-diynyl)benzonitriles (1-5) and their derivs. 7-23 were evaluated against several solid tumor cell lines and topoisomerase I, Compds, 1-5 show selective cytotoxicity with Hepa cells, and 2-[6-phenylhex-3-ene-1,5-diynyl]benzonitrile (5) reveals the most-potent activity. Analogs 8-10 and 13-22 also have the same effect with DLD cells; 1-[(Z)-dec-3-ene-1,5-diynyl]-4-nitrobenzene (21) shows the highest activity among them. Moreover, 1-[(Z)-dec-3-ene-1,5divnvll-2- (trifluoromethyl)benzene (20) exhibits the strongest inhibitory activity with the Hela cell line. Derivs. 9, 10, 18, and 23 display inhibitory activities with topoisomerase I at 87 µM. The cell-cycle anal, of compound 5, which induces a significant blockage in S phase, indicates that these novel enedignes probably undergo other biol. pathways leading to the cytotoxicity, except the inhibitory activity toward topoisomerase I. TT 457314-65-70

RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

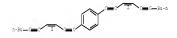
(cytotoxicity and topoisomerase I inhibitory activity of 2-[2-(2-alkynylphenyl)ethynyl]benzonitriles,

1-aryldec-3-ene-1,5-diynes, and related bis(enediynyl)arene compds.)

RN 457914-65-7 CAPLUS

CN Benzene, 1,4-di(3Z)-3-decene-1,5-divn-1-vl- (CA INDEX NAME)

Double bond geometry as shown.



OS.CITING REF COUNT:

THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD 3

(3 CITINGS)

REFERENCE COUNT:

THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 12 OF 15 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2002:628032 CAPLUS Full-text

DOCUMENT NUMBER: 138:4578

TITLE: Dramatically enhanced fluorescence of heteroaromatic chromophores upon insertion as spacers into

olico(triacetvlene)s

Edelmann, Michael J.; Raimundo, Jean-Manuel; Utesch, AUTHOR(S):

Nils F.; Diederich, Francois Lab. Organische Chemie, ETH-Hoenggerberg, HCI, Zurich,

CH-8093, Switz.

Helvetica Chimica Acta (2002), 85(7), 2195-2213 SOURCE .

CODEN: HCACAV: ISSN: 0018-019X Verlag Helvetica Chimica Acta

PHRILISHER: DOCUMENT TYPE: Journal

LANGUAGE: Roalish OTHER SOURCE(S): CASREACT 138:4578

CORPORATE SOURCE:

$$\begin{array}{c} 0 = 5i \, (t - 9u) \, \text{Me}_2 \\ 0 = 5i \, (t - 9u) \, \text{Me}_2 \\ 0 = 0 = 0 \\ 0 = 0 = 0 \\ 0 =$$

AB In continuation of a previous study on the modulation of π -electron conjugation of oligo(triacetylene)s by insertion of central hetero-spacer fragments between two (E)-hex-3-ene-1,5-diyne ((E)-1,2-diethynylethene, DEE) moieties, trimeric hybrid oligomers (I; A = spacer, R = SiEt3, SiMe3) were prepared Spacers used were both electron-deficient (quinoxaline-based heterocycles, pyridazine) and electron-rich (2.2'-bithiophene, 9.9-dioctyl-9Hfluorene)chromophores. With a dipyridophenazine spacer, transition metal complexes were synthesized as potential precursors for nanoscale scaffolding based on both covalent acetylenic coupling and supramol, assembly. The UV/visible spectra revealed that the majority of spacers provided heterotrimers featuring extended m-electron delocalization. The new hybrid chromophores show a dramatically enhanced fluorescence compared with the DEE dimer and homo-trimer. This increase in emission intensity appears as a general feature of these systems: even if the spacer mol. is nonfluorescent, the corresponding hetero-trimer may show a strong emission. The redox properties of the new hybrid chromophores were determined by cyclic voltammetry (CV) and rotating disk voltammetry (RDV). In each case, the first 1-electron reduction step in the hetero-trimers appeared anodically shifted compared with DEE dimer and homo-trimer. With larger spacer chromophore extending into two dimensions, the anodic shift (by 240-490 mV) seems to originate from inductive effects of the two strongly electron-accepting DEE substituents rather than from extended $\pi\text{-electron}$ conjugation along the oligomeric backbone, as had previously been observed for DEE substituted porphyrins.

IT \$77233-33-50 477294-00-10 \$77294-01-20 411294-02-38 477294-04-59 477234-06-7P 477294-09-99

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); SPM (Synthetic preparation); PREP (Preparation); PROC (Process)

(preparation, electrochem, properties and dramatically enhanced fluorescence

of compds. consisting of heteroarom. chromophores inserted as spacers into oligo(triacetylene)s)

RN 477293-99-5 CAPLUS

CN Quinoxaline, 5,8-bis[(3E)-3,4-bis[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]-6-(triethylsilyl)-3-hexene-1,5-diynyl]- (9CI) (CA INCEX NAME)

Double bond geometry as shown.

RN 477294-00-1 CAPLUS

CN Quinoxaline, 5,8-bis[(3E)-3,4-bis[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]-6-(triethylsilyl)-3-hexene-1,5-diyn-1-yl]-2,3-diphenyl- (CA INDEX NAME)

Double bond geometry as shown.

RN 477294-01-2 CAPLUS

CN Dibenzo[a,c]phenazine, 10,13-bis[(3E)-3,4-bis[[[(1,1-dimethylethyl]dimethylsilyl]oxy]methyl]-6-(triethylsilyl)-3-hexene-1,5-diyn-1-yl]- (CA INDEX NAME)

Double bond geometry as shown.

- RN 477294-02-3 CAPLUS
- CN Dipyrido[3,2-a:2',3'-c]phenazine, 10,13-bis[(3E)-3,4-bis[([(1,1-dimethylethyl]dimethylsilyl]oxy]methyl]-6-(triethylsilyl)-3-hexene-1,5-diyzyl]- (9CI) (CA INDEX NAME)

PAGE 1-A PAGE 1-A

PAGE 2-A t-Bu
$$\int_{t_0}^{t_0}$$
 Ne

RN 477294-04-5 CAPLUS

CR Zinc(2-1, bis[0,13-bis[(3E)-3,4-bis[([(1,1-directly)ethyl)denthylethyl)denthylethyldinethylethyldinethylethyldinethylethyldinethylethyldinethylethyldinethylethyldinethylethyldinet

CM 1

CRN 477294-03-4 CMF C140 H212 N8 O8 Si12 Zn CCI CCS

PAGE 1-C

$$\begin{array}{c} \text{Me} \\ t - 80 - \frac{51}{12} - C - CE_2 \\ \text{Me} \\ t - 81 - \frac{5}{12} - We \\ \end{array}$$

CRN 37181-39-8 CMF C F3 03 S

RN 477294-06-7 CAPLUS

CN Nickel(2+), bis[10,13-bis[(3E)-3,4-bis[([(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]-6-(triethylsilyl)-3-hexene-1,5diynyl]dipyrido[3,2-a:2',3'-c]phenazine-KN4,KN5]-, (T-4)-, diperchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 477294-05-6

CMF C140 H212 N8 Ni O8 Si12 CCI CCS

PAGE 1-A

PAGE 1-B

PAGE 2-A

CRN 14797-73-0

CMF Cl 04 PAGE 1-B

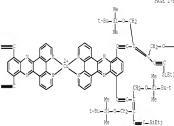
RN 477294-08-9 CAPLUS

CN Copper(2+), bis[10,13-bis[(3E)-3,4-bis][[(1,1dimethylethyl)dimethylsilyl]oxy]methyl]-6-(triethylsilyl)-3-hexene-1,5-
$$\label{eq:continuous} \begin{split} & \text{diynyl]dipyrido[3,2-a:2',3'-c]phenazine-kN4,kN5]-, (T-4)-,} \\ & \text{bis[hexafluorophosphate(1-)] (9CI) (CA INDEX NAME)} \end{split}$$

CM 1

CRN 477294-07-8 CMF C140 H212 Cu N8 08 Si12 CCI CCS

PAGE 1-A



PAGE 1-C

PAGE 2-A

CM 2

CRN 16919-18-9 CMF F6 P CCI CCS



OS.CITING REF COUNT:

42 THERE ARE 42 CAPLUS RECORDS THAT CITE THIS

RECORD (44 CITINGS)

REFERENCE COUNT:

PUBLISHER:

THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS

RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 13 OF 15 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2002:539072 CAPLUS Full-text DOCUMENT NUMBER: 137:232177

TITLE: Anionic Cycloaromatization of

1-Aryl-3-hexen-1,5-diynes Initiated by Methoxide Addition: Synthesis of Phenanthridinones, Benzo[c]phenanthridinones, and Biaryls

AUTEOR/S): Wu, Ming-Jung; Lin, Chi-Fong; Lu, Wen-Der CORPORATE SOURCE: School of Chemistry, Kaohsiung Medical University,

Kachsiung, Taiwan

Journal of Organic Chemistry (2002), 67(17), 5907-5912 SOURCE:

CODEN: JOCEAH; ISSN: 0022-3263 American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English CASREACT 137:232177 OTHER SOURCE(S):

AB Treatment of 2-((Z)-6-substituted-3-hexene-1,5-diynyl)benzonitriles with sodium methoxide in refluxing methanol in the presence of a polar aprotic solvent, such as DMSO, HMPA, THF, or 18-crown-6, gave phenanthridinones in 21-77% yields. In these cases, addition of 10% DMSO into the reaction mixture gave the highest yield. On the other hand, methanolysis of 2-(2-(2alkynylphenyl)ethynyl)benzonitriles under the same reaction conditions gave benzo[c]phenanthridinones in 31-57% yields. Methanolysis of (Z)-1-aryl-3hexen-1,5-divnes in the presence of 2 equiv of tetrabutylammonium iodide gave biaryls in 14-64% yields. It is found that the reactions with aryl groups bearing electron-withdrawing groups proceeded at greater rates and gave better yields.

TT 457954-65-7P

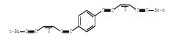
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(anionic cycloaromatization of 1-aryl-3-hexen-1,5-divnes initiated by addition of methanol)

RN 457914-65-7 CAPLUS

CN Benzene, 1,4-di(3Z)-3-decene-1,5-diyn-1-yl- (CA INDEX NAME)

Double bond deometry as shown.



OS, CITING REF COUNT:

13 THERE ARE 13 CAPLUS RECORDS THAT CITE THIS

RECORD (13 CITINGS)

15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COINT: RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

14 ANSWER 14 OF 15 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1999:625317 CAPLUS Full-text

COCUMENT NUMBER: 131:337377

TITLE: Modulation of π -electron conjugation in

oligo(triacetylene) chromophores by incorporation of a

central spacer

AUTHOR(S): Martin, Rainer E.; Wytko, Jennifer A.; Diederich,

Francois; Boudon, Corinne; Gisselbrecht, Jean-Paul;

Gross, Maurice

CORPORATE SOURCE: Laboratorium fur Organische Chemie, ETH-Zentrum,

Zurich, CH-8092, Germany

Helvetica Chimica Acta (1999), 82(9), 1470-1485 SOURCE .

CODEN: HCACAV; ISSN: 0018-019X Verlag Helvetica Chimica Acta

PUBLISHER: DOCUMENT TYPE: Journal

LANGUAGE: English AB A series of trimeric hybrid oligomers was prepared by insertion of different hetero-spacers between two (E)-hex-3-ene-1,5-diyne (E = 1,2-diethynylethene, DEE) moieties, and the optical and electrochem, properties of the resulting π -

conjugated materials were compared to those of the DEE dimer and trimer, which formally contain a DBE moiety as homo-spacer. The hetero-spacers were: benzenoid (phenylene, naphthalene, biphenylene, anthracene), π-electrondeficient (pyrazine, pyridine) and π -electron-rich (thiophene, furan) aromatic rings, and trans-Pt(PEt3)2. The hybrid oligomers were synthesized using the method of K. Sonogashira et al. (1978), i.e., cross-coupling between monodeprotected DEE and the appropriately bis-functionalized spacer. UV/VIS data revealed that the majority of the hetero-spacers were less effective than the

homo-spacer DEE in facilitating π -electron delocalization along the linearly

conjugated oligomeric backbone. With increasing degree of benzenoid

aromaticity in the hetero-spacer, the electronic communication between the terminal DEE moieties in the hybrid oligomers was reduced. As a remarkable exception, a large bathochromic shift of the longest-wavelength absorption maximum, which is indicative of enhanced π -electron delocalization, was obtained upon introducing an anthracene-9,10-diyl moiety as hetero-spacer. Electrochem. studies by cyclic and steady-state voltammetry confirmed the

limited extent of π -electron delocalization in the majority of the hybrid

oligomers. The fluorescence properties of many of the DEE hybrid materials were dramatically enhanced upon incorporation of the heterospacers. The heterocyclic derivs. containing pyridine, pyrazine, or thiophene spacers, resp., displayed a strong fluorescence emission, demonstrating the value of combining repeat units to modulate oligomeric and polymeric properties. The pyridine derivative provided an interesting example of a mol. system, in which

both the electronic absorption and emission characteristics can be reversibly switched as a function of pH. IT 249616-79-39, 4-Bis[(E)-3,4-bis[[(tert-

butvl)dimethvlsilvloxv]methvl]-6-(trimethvlsilvl)-hex-3-ene-1,5diynyl]benzene 243616-83-92, 9.10-Bis(E)-3.4-bis((tert-butvl)dimethylsilvloxy|methyl]-6-

(trimethylsily1)-hex-3-ene-1,5-divnyl]anthracene 243616-84-02 243616-87-38, 1,4-Bis[(E)-3,4-bis[[(tertbutyl/dimethylsilyloxy]methyl]-6-(trimethylsilyl)-hex-3-ene-1,5-diynyl]-

2,3,5,6-tetramethylbenzene

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(preparation and modulation of π -electron conjugation in oligoacetylene chromophores by central spacer with variable electron d.)

- RN 249616-79-3 CAPLUS
- CN 4,9-Dioxa-3,10-disiladodec-6-ene, 6,6'-(1,4-phenylenedi-2,1ethynediyl)bis[2,2,3,3,10,10,11,11-octamethyl-7-[(trimethylsilyl)ethynyl]-, (6E, 6'E) - (9CI) (CA INDEX NAME)

Double bond geometry as shown.

- RN 249616-83-9 CAPLUS
- CN 4,9-Dioxa-3,10-disiladodec-6-ene, 6,6'-(9,10-anthracenediyldi-2,1ethynediyl)bis[2,2,3,3,10,10,11,11-octamethyl-7-[(trimethylsilyl)ethynyl]-, (6E,6'E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

- RN 249616-84-0 CAPLUS
- CN 4,9-Dioxa-3,10-disiladodec-6-ene, 6,6'-[(2,3,5,6-tetrafluoro-1,4phenylene)di-2,1-ethynediyl]bis[2,2,3,3,10,10,11,11-octamethyl-7-[(trimethylsilyl)ethynyl]-, (6E,6'E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

- RN 249616-87-3 CAPLUS
- CN 4,9-Dioxa-3,10-disiladodec-6-ene, 6,6'-[(2,3,5,6-tetramethyl-1,4phenylene)di-2,1-ethynediyl]bis[2,2,3,3,10,10,11,11-octamethyl-7-[(trimethylsilyl)ethynyl]-, (6E,6'E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

OS.CITING REF COUNT: THERE ARE 29 CAPLUS RECORDS THAT CITE THIS

RECORD (29 CITINGS)

REFERENCE COUNT: THERE ARE 69 CITED REFERENCES AVAILABLE FOR THIS RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

14 ANSWER 15 OF 15 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1968:78330 CAPLUS Full-text

DOCUMENT NUMBER: 68:78330 ORIGINAL REFERENCE NO.: 68:15123a,15126a

TITLE: Interaction of diiodoethylene with copper acetylides AUTHOR(S): Ukhin, L. Yu.; Sladkov, A. M.; Gorshkov, V. I. CORPORATE SOURCE: Inst. Elementoorg. Soedin, Moscow, USSR SOURCE: Zhurnal Organicheskoi Khimii (1968), 4(1), 25-7

CODEN: ZORKAE; ISSN: 0514-7492

DOCUMENT TYPE: Journal LANGUAGE: Russian

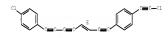
- AB Reaction of trans-diiodoethylene (I) with Cu acetylides gave the condensation products of general formula RC.tplbond.CCH:CHI (IIa) or RC.tplbond.CCH:CHC.tplbond.CR (IIb). The structure of products was confirmed by ir and mass spectroscopy; trans configuration of the double bond was preserved. For example, a mixture of 3.29 g. (PhC.tplbond.C)2Cu, 2.78 g. I, and 100 ml. HCONMe2 was stirred 4 hrs. at 90° and then refluxed 2 hrs. Cooling, filtration, and addition of H2O to the filtrate precipitated 56% IIb (R = Ph) m. 111-12° (heptane). Similarly, IIb (R = Bu) b4 117°, n24D 1.5173 was prepared Boiling 23.4 q. (BuC.tplbond.C)2Cu with 44.8 q. I in 125 ml. pyridine for 10 min. gave 40% IIa (R = Bu) b5 84-5°, n200 1.5519. Similarly IIa (R = Ph) b2.5 112-14°, n23D 1.6880 was prepared However boiling (p-IC6H4C.tplbond.C)2Cu, with I in pyridine gave IIa (R = p-IC6H4) m. 125-30° and IIb (R = p-IC6H4) m. 245-7° (C6H6-heptane), separated by crystallization Also (p-ClC6H4C.tplbond.C)2Cu and I gave IIa (R = p-ClC6H4C.tplbond.C) m. 80-5° and IIb (R = p-ClC6H4C.tplbond.C) m. 179-85° (heptane). To further confirm the structures of IIa and IIb they were converted to boranes by refluxing with an excess of decaborane in PhMe solution The following were characterized (compound, % yield, and m.p. given): 1,2-bis(1-butylbarenyl)ethylene, 62, 153-5° (PhMe): 1-(β-iodovinvl)-2-phenylbarene, -, 227-35° (hexane); 1-(β-
- IT 1082669-94-0P

RL: SPN (Synthetic preparation); PRP (Properties); PREP (Preparation) (Interaction of diiodoethylene with copper acetylides)

- RN 1082669-94-0 CAPLUS
- CN INDEX NAME NOT YET ASSIGNED

iodovinyl)-2-butylbarene, -, 72-4°.

Double bond geometry as shown.



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2000-1/

chain nodes : 1 2 3 4 5 6 7 8 9 chain bonds: 1-2 2-3 3-4 4-5 5-6 6-7 7-8 8-9 exact/norm bonds: 6-7 7-8 exact bonds: 1-2 2-3 3-4 4-5 5-6 8-9

G1:Cb,Cy,Hy

Match level: 1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:Atom 8:CLASS 9:CLASS

1.5 STRUCTURE UPLOADED

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SAMPLE SEARCH INITIATED 09:41:22 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 408 TO ITERATE

100.0% PROCESSED 408 ITERATIONS 4 ANSWERS SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCE **COMPLETE**

PROJECTED ITERATIONS: 6949 TO 9371

PROJECTED ANSWERS: 4 TO 200

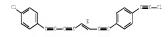
L6 4 SEA SSS SAM L5

d scan

- 16 4 ANSWERS REGISTRY COPYRIGHT 2009 ACS on STN
- IN INDEX NAME NOT YET ASSIGNED

MF C22 H10 C12

Double bond geometry as shown.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISE TO SCAN? (1):1

- 16 4 ANSWERS REGISTRY COPYRIGHT 2009 ACS on STN
- IN Zinc(2+), [[diethyl 4,4'-[[10,20-bis[[3E]-3,4-bis[[[1,1dimethylathyl]dimethylsilyl]owy]nethyl]-6-(trimethylsilyl)-3-hexene-1,4diyxyl]-21R,23H-porphine-5,15-diylx(21,x022,x023,x024)bis(4,1-

CI CCS

PAGE 1-A

PAGE 1-B

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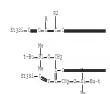
PAGE 2-A

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

- 16 4 ANSWERS REGISTRY COPYRIGHT 2009 ACS on STN
- IN Copper(2+), bis[10,13-bis[(3E)-3,4-bis[[[(1,1dimethylethyl)dimethylsilyl]oxy]methyl]-6-(triethylsilyl)-3-hexene-1,5diynyl|dipyrido(3,2-a:2',3'-o|phenazin-KN4,KN5]-, (T-4)-, bis[hexafluorophosphate(1-)] (9C1) MF C140 H212 Cu N3 O8 Sil2 . 2 F6 P

CM 1

PAGE 1-A



PAGE 1-B

T-Bu Ne Bu-t Me Bu-t L-Bu Ne L-Bu Ne L-Bu Ne L-Bu Ne

FAGE 1-B

CM 2

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

- MF C55 H85 I O4 S15

Double bond geometry as shown.

****I

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

ALL ANSWERS HAVE BEEN SCANNED

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100.0% PROCESSED 7813 ITERATIONS SEARCH TIME: 00.00.01

7 123 SEA SSS FUL 15

=> file caplus

=> s 17 18 39 L7 123 ANSWERS

=> d ibib abs hitstr 1-

YOU HAVE REQUESTED DATA FROM 39 ANSWERS - CONTINUE? Y/(N):v

L8 ANSWER 1 OF 39 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2009:1167687 CAPLUS Full-text

DOCUMENT NUMBER: 151:470282

TITLE: Synthesis of hybrid masked triyne-phenylene axial rods

containing $(E)-\beta$ -chlorovinylsilanes in the

π-conjugated framework

AUTHOR(S): Weller, Michael D.; Kariuki, Benson M.; Cox, Liam R. CORPORATE SOURCE: School of Chemistry, The University of Birmincham,

Birmingham, B15 2TT, UK

SOURCE: Journal of Organic Chemistry (2009), 74(20), 7898-7907

CODEN: JOCEAH; ISSN: 0022-3263

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

AB Silyl-masked hexayne Me3SiC.tplbond.CCC1:C(SiR3)C.tplbond.CC.tplbond.C(SiR 3):CC1c.tplbond.CSiMe3 (7, SIR3 = HBMPM2Si) undergoes fluoride-induced βelimination yielding after terminal modifications, 1,12-diaryidodecahexaynes; compared to its nositional isomer

compared to its positional isomer WasSiC.tiphond.CCSIMS.3C.tplbond.CSIME 3 (2, same SIMS), prepared earlier, the compound 7 provides increased flexibility, allowing introduction of aromatic spacer groups, useful in production of carbyne-type mol. wires. A two-directional synthesis of a masked hewayme 7, in which two P-chlorovinyIsilares protect two of the internal alkynes, is reported. The key step involves the Pd-cotalyzed oxidative dimerization of alkyne Mc.tplbond.CC(SIMS):CCICECOTEMP (10) to provide diyne THBOCHECCIC(SIMS)CCICECOTEMP (21), which is elaborated into centrosym. masked hexayme 7 is a constitutional isomer of masked hexayme 7 was not as a monomer unit for oligoyne assembly. Although masked hexayme 7 was not as convenient a binliding block as 2 for application in oligoyne assembly, one of its precursors, namely alkyne 10, could be used successfully in Sonogashira couplings, which allowed the incorporation of aromatic spacers and the formation of hybrid masked triyne-phenylenes

Me3SiC.tplbond.CCCl:C(SiR3)C.tplbond.C-1,4-

C6H4C.tplbond.CC(SiR3):CClC.tplbond.CSiMe3 (20) and

[We3SiCltplbond.CCCl:c[SiR3]Cltplbond.C-1,4-C6H4C.tplbond.C]2 (28). Compds. 20 and 28 both contain renovable end-groups, which will permit their application as building blocks for the assembly of classes of long-chain, π -conjugated rod-like mois. Rod-like moi.

Me2C(OH)C.tplbond.cCCl:c(SiR3)(C.tplbond.CCGH4C.tplbond.C)2C(SiR3):cClC.tp lbond.CCMe2(OH) (34, CGH4 = 1,4-phenylene), which possesses a similar conjugated scaffold as 23, was also prepared by using a similar strategy. Treatment of 34 with TBAF effected a 2-fold dechlorosilylation to provide a rigid rod nol. Me2C(OH)(C.tplbond.C)3CGH4(C.tplbond.C)2CGH4(C.tplbond.C) 3CMe2(OH) (33) in which two 1,4-phenylene units interrupt an octayns scaffold. IT 132039-46-130 133103-56-70 1351056-1-58

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of π-conjugated p-phenylene-bridged β-chloro silyl-substituted enymes as precursors for arylene-containing polyyne mol.

wires) RN 1191093-44-3 CAPLUS

CN INDEX NAME NOT YET ASSIGNED

Double bond geometry as shown.

RN 1191093-45-4 CAPLUS CN INDEX NAME NOT YET ASSIGNED

Double bond geometry as shown.

RN 1191093-46-5 CAPLUS

CN 5-Octene-3,7-diyn-2-ol, 8,8'-(1,3-butadiyne-1,4-diyldi-4,1-phenylene)bis[5-chloro-6-[(1,1-dimethylethyl)diphenylsilyl]-2-methyl-, (5E,5'E)- (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-B

IT 1191093.13-0P 1191693-41-0P
RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of π -conjugated p-phenylene-bridged β -chloro silyl-substituted enymes as precursors for arylene-containing polyyne mol. wires!

- RN 1191093-33-0 CAPLUS
- Benzene, 1,4-bis[(3E)-4-chloro-3-[(1,1-dimethylethyl)diphenylsilyl]-6-(trimethylsilyl)-3-hexene-1,5-diyn-1-yl]- (CA INDEX NAME)

Double bond geometry as shown.

- RN 1191093-41-0 CAPLUS
- Benzene, 1,1'-(1,3-butadiyne-1,4-diyl)bis[4-[(3E)-4-chloro-3-[(1,1dimethylethyl)diphenylsilyl]-6-(trimethylsilyl)-3-hexene-1,5-diyn-1-yl]-(CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-B

THERE ARE 60 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 2 OF 39 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2009:1099083 CAPLUS Full-text DOCUMENT NUMBER:

TITLE: Hybrid Conjugated Organic Oligomers Consisting of

Oligodiacetylene and Thiophene Units: Synthesis and

Optical Properties

AUTHOR(S): Pilzak, Gregor S.; van Gruijthuijsen, Kitty; van

Doorn, Reindert H.; van Lagen, Barend; Sudhoelter,

Ernst J. R.: Zuilhof, Han Laboratory of Organic Chemistry, Wageningen

CORPORATE SOURCE: University, Dreijenplein 8, Wageningen, 6703 HB, Neth.

Chemistry-A European Journal (2009), 15(36),

SOURCE:

9085-9096, S9085/1-S9085/19

CODEN: CEUJED; ISSN: 0947-6539

PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA DOCUMENT TYPE: Journal

LANGUAGE: English

CASREACT 151:508432 OTHER SOURCE(S):

AB Novel and highly soluble hybrid conjugated organic oligomers consisting of oligodiacetylene and thiophene units have been synthesized in high purity through iterative and divergent approaches based on a sequence of Sonogashira reactions. The series of thiophene-containing oligodiacetylenes and homocoupled oligodiacetylenes show, both in solution and in the solid state, a strong optical absorption, which is progressively red shifted with increasing chain length. The linear correlation of the absorption maximum with the inverse of conjugation length (CL = number of double and triple bonds) shows that the effective conjugation length of this system is extended up to at least CL = 20. Furthermore, absorption measurements of dropcast thin films display not only a bathochromic shift of the absorption maxima but also a higher wavelength absorption, which is attributed to increased π - π interactions. The wavelength of the maximum fluorescence emission also increases with CL, and emission is maximal for oligomers with CL = 7-12 (fluorescence quantum yield ΦF = .apprx.0.2). Both longer and shorter oligomers display marginal emission. The calculated Stokes shifts of these planar materials are relatively large (0.4 eV) for all oligomers, and likely due to excitation to the S2 state, thus suggesting that the presence of enyme moieties dominates the ordering of the lowest excited states. The fluorescence lifetimes (TF) are short (TF) max = (TF) and closely follow the tendency obtained for the fluorescence quantum yield. The anisotropy lifetimes show a near-linear increase with CL in line with highly rigid oligomers.

IT 1395858-79-3P 1132420-80-6P 1192820-84-0P 1192820-86-PP 1192820-90-8P 1192829-92-0P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (synthesis via iterative Sonogashira coupling and optical properties of hybrid conjugated organic oligomers consisting of oligodiacetylene and thiophene units)

- RN 1192820-79-3 CAPLUS
- CN INDEX NAME NOT YET ASSIGNED

PAGE 1-B

- RN 1192820-80-6 CAPLUS
- CN Thiophene, 2,5-bis[(3E)-4-butyl-7-methoxy-7-methyl-3-propyl-3-octene-1,5-diyn-1-yl]- (CA INDEX NAME)

Double bond geometry as shown.

$$\underset{\text{Me}}{\overset{\text{Me}}{\nearrow}} \overset{\text{n-Pr}}{=} \overset{\text{n-Pr}}{=} \overset{\text{n-Pr}}{=} \overset{\text{n-Pr}}{=} \overset{\text{n-Pr}}{=} \overset{\text{Ne}}{\longrightarrow} \overset{\text{n-Pr}}{=} \overset{\text{n-Pr}}{\longrightarrow} \overset{\text{Me}}{\longrightarrow} \overset{\text{Ne}}{\longrightarrow} \overset{\text{n-Pr}}{\longrightarrow} \overset{\text{n-Pr}}{\longrightarrow} \overset{\text{Ne}}{\longrightarrow} \overset{\text{n-Pr}}{\longrightarrow} \overset{\text{n-Pr}}{\longrightarrow}$$

- RN 1192820-84-0 CAPLUS
- CN Thiophene, 2,5-bis[(3E,7E)-4-butyl-8-[2-(5-methyl-2-thienyl)ethynyl]-3,7-dipropyl-3,7-dodecadiene-1,5-diyn-1-yl]- (CA INDEX NAME)

Double bond geometry as shown.

$$\text{Me} \underbrace{\begin{array}{c} \sum_{n=0.5}^{n-2} C = C \\ \sum_{n=0.5}^{n-2} C = C \\ \sum_{n=0.5}^{n-2} C = C \\ \end{array}}_{\text{Deg}} C = C \underbrace{\begin{array}{c} \sum_{n=0.5}^{n-2} C \\ \sum_{n=0.5}^{n-2} C = C \\ \end{array}}_{\text{Deg}} C = C \underbrace{\begin{array}{c} \sum_{n=0.5}^{n-2} C \\ \sum_{n=0.5}^{n-2} C = C \\ \end{array}}_{\text{Deg}} C = C \underbrace{\begin{array}{c} \sum_{n=0.5}^{n-2} C \\ \sum_{n=0.5}^{n-2} C = C \\ \end{array}}_{\text{Deg}} C = C \underbrace{\begin{array}{c} \sum_{n=0.5}^{n-2} C \\ \sum_{n=0.5}^{n-2} C = C \\ \end{array}}_{\text{Deg}} C = C \underbrace{\begin{array}{c} \sum_{n=0.5}^{n-2} C \\ \sum_{n=0.5}^{n-2} C = C \\ \end{array}}_{\text{Deg}} C = C \underbrace{\begin{array}{c} \sum_{n=0.5}^{n-2} C \\ \sum_{n=0.5}^{n-2} C = C \\ \end{array}}_{\text{Deg}} C = C \underbrace{\begin{array}{c} \sum_{n=0.5}^{n-2} C \\ \sum_{n=0.5}^{n-2} C = C \\ \end{array}}_{\text{Deg}} C = C \underbrace{\begin{array}{c} \sum_{n=0.5}^{n-2} C \\ \sum_{n=0.5}^{n-2} C = C \\ \end{array}}_{\text{Deg}} C = C \underbrace{\begin{array}{c} \sum_{n=0.5}^{n-2} C \\ \sum_{n=0.5}^{n-2} C = C \\ \end{array}}_{\text{Deg}} C = C \underbrace{\begin{array}{c} \sum_{n=0.5}^{n-2} C \\ \sum_{n=0.5}^{n-2} C = C \\ \end{array}}_{\text{Deg}} C = C \underbrace{\begin{array}{c} \sum_{n=0.5}^{n-2} C \\ \sum_{n=0.5}^{n-2} C = C \\ \end{array}}_{\text{Deg}} C = C \underbrace{\begin{array}{c} \sum_{n=0.5}^{n-2} C \\ \sum_{n=0.5}^{n-2} C = C \\ \end{array}}_{\text{Deg}} C = C \underbrace{\begin{array}{c} \sum_{n=0.5}^{n-2} C \\ \sum_{n=0.5}^{n-2} C = C \\ \end{array}}_{\text{Deg}} C = C \underbrace{\begin{array}{c} \sum_{n=0.5}^{n-2} C \\ \sum_{n=0.5}^{n-2} C = C \\ \end{array}}_{\text{Deg}} C = C \underbrace{\begin{array}{c} \sum_{n=0.5}^{n-2} C \\ \sum_{n=0.5}^{n-2} C = C \\ \end{array}}_{\text{Deg}} C = C \underbrace{\begin{array}{c} \sum_{n=0.5}^{n-2} C \\ \sum_{n=0.5}^{n-2} C = C \\ \end{array}}_{\text{Deg}} C = C \underbrace{\begin{array}{c} \sum_{n=0.5}^{n-2} C \\ \sum_{n=0.5}^{n-2} C = C \\ \end{array}}_{\text{Deg}} C = C \underbrace{\begin{array}{c} \sum_{n=0.5}^{n-2} C \\ \sum_{n=0.5}^{n-2} C = C \\ \end{array}}_{\text{Deg}} C = C \underbrace{\begin{array}{c} \sum_{n=0.5}^{n-2} C \\ \sum_{n=0.5}^{n-2} C = C \\ \end{array}}_{\text{Deg}} C = C \underbrace{\begin{array}{c} \sum_{n=0.5}^{n-2} C \\ \sum_{n=0.5}^{n-2} C = C \\ \end{array}}_{\text{Deg}} C = C \underbrace{\begin{array}{c} \sum_{n=0.5}^{n-2} C \\ \sum_{n=0.5}^{n-2} C = C \\ \end{array}}_{\text{Deg}} C = C \underbrace{\begin{array}{c} \sum_{n=0.5}^{n-2} C \\ \sum_{n=0.5}^{n-2} C = C \\ \end{array}}_{\text{Deg}} C = C \underbrace{\begin{array}{c} \sum_{n=0.5}^{n-2} C \\ \sum_{n=0.5}^{n-2} C = C \\ \end{array}}_{\text{Deg}} C = C \underbrace{\begin{array}{c} \sum_{n=0.5}^{n-2} C \\ \sum_{n=0.5}^{n-2} C = C \\ \end{array}}_{\text{Deg}} C = C \underbrace{\begin{array}{c} \sum_{n=0.5}^{n-2} C \\ \sum_{n=0.5}^{n-2} C = C \\ \end{array}}_{\text{Deg}} C = C \underbrace{\begin{array}{c} \sum_{n=0.5}^{n-2} C \\ \sum_{n=0.5}^{n-2} C = C \\ \end{array}}_{\text{Deg}} C = C \underbrace{\begin{array}{c} \sum_{n=0.5}^{n-2} C \\ \sum_{n=0.5}^{n-2} C = C \\ \end{array}}_{\text{Deg}} C = C \underbrace{\begin{array}{c} \sum_{n=0.5}^{n-2} C \\ \sum_{n=0.5}^{n-2} C = C \\ \end{array}}_{\text{Deg}} C = C \underbrace{\begin{array}{c} \sum_$$

PAGE 1-B

- RN 1192820-86-2 CAPLUS
- CN INDEX NAME NOT YET ASSIGNED

Double bond geometry as shown.

$$\underbrace{\text{Me}}_{\text{Me}} \underbrace{\text{Re} \underbrace{\sum_{n=0}^{n-2\tau} \underbrace{\sum_{n=0}^{n-$$

PAGE 1-B

- RN 1192820-90-8 CAPLUS
- CN Thiophene, 2,5-bis[(3E,7E,11E)-4,8-dibutyl-12-[2-[5-methyl-2-thienyl]ethynyl]-3,7,11-tripropyl-3,7,11-hexadecatriene-1,5,9-triyn-1-yl]-(CA INDEX MANE)

Double bond geometry as shown.

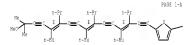
PAGE 1-A
$$\begin{array}{c} \text{PAGE 1-A} \\ \text{Me} \\ \end{array}$$

PAGE 1-C

RN 1192820-92-0 CAPLUS

CN INDEX NAME NOT YET ASSIGNED PAGE 1-A

Double bond geometry as shown.



REFERENCE COUNT: 56 THERE ARE 56 CITED REFERENCES AVAILABLE FOR THIS RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 3 OF 39 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2007:46877 CAPLUS Full-text

DOCUMENT NUMBER: 148:284829

TITLE: Synthesis of smallest unit model of graphite

intercalation compound and its possibility Ogoshi, Sensuke

AUTHOR(S): Ogoshi, Sensuke
CORPORATE SOURCE: Department of Applied Chemistry, Faculty of

Engineering, Osaka University, Japan

SOURCE: Asahi Garasu Zaidan Josei Kenkyu Seika Hokoku (2006)

01.03.07/1-01.03.07/8

CODEN: AGSHEN; ISSN: 0919-9179

PUBLISHER: Asahi Garasu Zaidan
DOCUMENT TYPE: Journal; (computer optical disk)

LANGUAGE: Journal; (comput LANGUAGE: Japanese

OTHER SOURCE(S): CASREACT 148:284829

AB Graphite is perhaps the simplest layered structure. Many substances can be intercalated between layers of graphite. Upon intercalation, the graphite layers moved apart somewhat due to the intercalated atom. Bowever, the layers still keep parallel each other which would be the key for the formation of intercalation compost. Thus, compost. heving two aromatic rings, which can change the distance between the rings and keep parallel to each other, were designed and synthesized. The target compound was 1,8-bis[6-[1-naphthalenyl]-3-hexeep-1,5-distwyl] anthraceme.

IT 1007802-95-09

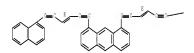
RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of bis[(naphthalenyl)hexenediynyl]anthracene (smallest unit model for graphite intercalation compound))

RN 1007602-95-0 CAPLUS

CN Anthracene, 1,8-bis[(3E)-6-(1-naphthalenyl)-3-hexene-1,5-diyn-1-yl]- (CA INDEX NAME)

Double bond geometry as shown.



L8 ANSWER 4 OF 39 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2006:1027761 CAPLUS <u>Full-text</u> DOCUMENT NUMBER: 146:27609

TITLE: Phane properties of

[2.2]paracyclophane/dehydrobenzoannulene hybrids
AUTHOR(S): Hinrichs, Heino; Boydston, Andrew J.; Jones, Peter G.;

Hess, Kirsten; Herges, Rainer; Haley, Michael M.;

Hopf, Henning

CORPORATE SOURCE: Institut fuer Organische Chemie, Technische

CASREACT 146:27609

Universitaet Braunschweig, Braunschweig, 38106,

PAGE 1-B

Germany Chemistry--A European Journal (2006), 12(27),

7103-7115

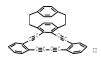
CODEN: CEUJED; ISSN: 0947-6539
PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA

COCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S):

SOURCE:





AB Macrocyclic hybrids of [2.2] paracyclophanes with dehydrobenzo[14] annulenes and dehydro[14] annulenes such as I and II are prepared The UV/visible absorption spectra of the hybrids are compared to determine the communication between the aromatic rings of the paracyclophane units. For some of the title compds, and unsubstituted derivs, the anisotropy of induced c.d. is determined by calon. to determine the effect of twisting in the perimeter of the macrocycles on the aromaticity of the component structures. The structures of a

tetraethynyl[2.2]paracyclophane and of a twisted macrocyclic annulene are determined by X-ray crystallog.

II 375366-59-90 865470-07-50

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

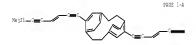
(preparation and UV/visible absorption spectra of macrocyclic hybrids of [2.2] paracyclophanes with dehydrobenzo[14]annulenes and

dehydro[14]annulenes and the anisotropy of induced c.d. and crystal structures of selected compds.)

RN 375366-59-9 CAPLUS

CN Tricyclo[8.2.2.24,7]hexadeca-4,6,10,12,13,15-hexaene,

5,11-bis[6-(trimethylsily1)-3-hexene-1,5-diyn-1-y1]-, stereoisomer (CA INDEX NAME)



PAGE 1-B

≡C—SiMe3

RN 865470-27-5 CAPLUS

CN Tricyclo[8.2.2.24,7]hexadeca-4,6,10,12,13,15-hexaene, 5,6-bis[(3Z)-6-(trimethylsilyl)-3-hexene-1,5-diyn-1-yl]- (CA INDEX NAME)

Double bond geometry as shown.

CS.CITING REF COUNT: 13 THERE ARE 13 CAPLUS RECORDS THAT CITE THIS

RECORD (13 CITINGS)

REFERENCE COUNT: 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 5 OF 39 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2005:1004691 CAPLUS Full-text

DOCUMENT NUMBER: 143:306181

OCUMENT NUMBER: 143:300101

TITLE: Process for preparation of m-conjugated aromatic ring-containing acetylene derivatives as organic

electroluminescent devices

INVENTOR(S): Sato, Fumie; Takawama, Yuuki

PATENT ASSIGNEE(S): Nissan Chemical Industries, Ltd., Japan

SOURCE: PCT Int. Appl., 82 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | | | | KIND DATE | | | | APPL | ICAT | ION : | NO. | DATE | | | | | |
|---------------|-----|-----|-----|-------------|-----|----------------------------|-----|----------------|------|-------|-----|------|----------|----------|------------------------|----------|----|
| | | | | | | | | | | | | | | | | | |
| WO 2005085176 | | | | A1 20050915 | | | | WO 2005-JP3950 | | | | | 20050308 | | | | |
| И: | ΑE, | AG, | AL, | AM, | AT, | AU, | AZ, | BA, | ВΒ, | BG, | BR, | B₩, | ΒY, | BZ, | CA, | CH, | |
| | CN, | CO, | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EC, | EE, | EG, | ES, | FI_{I} | GB, | GD, | |
| | GΕ, | GH, | GM, | HR, | ΗU, | ID, | IL, | IN, | IS, | JP, | ΚE, | KG, | K₽, | KR_{t} | KZ, | LC, | |
| | LK, | LR, | LS, | LT, | LU, | LV, | MA, | MD, | MG, | MK, | MN, | MW, | MX, | MZ_{I} | NA, | NI, | |
| | NO, | NZ, | OM, | PG, | PH, | PL, | PT, | RO, | RU, | SC, | SD, | SE, | SG, | SK, | SL, | SM, | |
| | SY, | TJ, | TM, | TN, | TR, | TT, | ΤΖ, | UA, | UG, | US, | UZ, | VC, | WN, | YU, | ZA, | 214, | ZW |
| RW: | BW, | GH, | GM, | ΚE, | LS, | $\mathbb{M}\mathbb{W}_{t}$ | MZ, | NA, | SD, | SL, | SZ, | TZ, | UG, | ZM_{r} | ZW, | AM, | |
| | ΑZ, | ΒY, | KG, | ΚZ, | MD, | RU, | IJ, | TM, | AT, | ΒE, | BG, | CH, | CY, | CZ, | DE, | DK, | |
| | EE, | ES, | FI, | FR, | GB, | GR, | HU, | IE, | IS, | IT, | Lī, | LU, | MC, | NL, | \mathtt{PL}_{\prime} | PT, | |
| | RO, | SE, | SI, | SK, | TR, | BF, | BJ, | CF, | CG, | CI, | CM, | GA, | GN, | GQ, | G₩, | ML_{i} | |
| | MR, | NE, | SN, | TD, | TG | | | | | | | | | | | | |

US 20070176164 A1 20070802 US 2007-591950 20070307
PRIORITY APPLN. INFO:: JP 2004-65446 A 20040309
W0 2005-JP3950 W 20050308

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OTHER SOURCE(S): MARPAT 143:306181

GΙ

- AB This invention pertains to a method for producing x-conjugated aromatic ringcontaining acetylene derivs, via coupling reaction in the presence of palladium and Cu(I) catalysts. For example, the compound I was prepared in a multi-step synthesis in good yield. The title compds. are useful as electroluminescent devices.
- IT 747810-64-4P 740810-65-59 740830-67-7P 140810-68-8P 804083-96-59 864683-97-6P 864684-01-5P 864684-72-5P 364684-04-8P 864684-05-9F R44484-31-1P #64684-32-2P
 - RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; preparation of π-conjugated aromatic ring-containing acetylene

derivs, as organic electroluminescent devices)

- 740810-64-4 CAPLUS
- CN 3-Butyn-2-ol, 4-[6-[(3E)-3-butyl-4-[2-[6-[2-[tris(1methylethyl)silyl]ethynyl]-3-pyridinyl]ethynyl]-3-hepten-1-yn-1-yl]-3pyridinyl]-2-methyl- (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-B



- RN 740810-65-5 CAPLUS
- CN 3-Butyn-2-ol, 4-[6-[(3E)-3-butyl-4-[2-[6-[(3E)-3-butyl-4-[2-[6-[2-[tris(1methylethyl)silyl]ethynyl]-3-pyridinyl]ethynyl]-3-hepten-1-yn-1-yl]-3pyridinyl]ethynyl]-3-hepten-1-yn-1-yl]-3-pyridinyl]-2-methyl- (CA INDEX NAME

Double bond geometry as shown.

PAGE 1-B

- RN 740810-67-7 CAPLUS
- CN 3-Butyn-2-ol, 2-methyl-4-[5-[(3E)-3-propyl-4-[[5-[[tris(1methylethyl)silyl]ethynyl]-2-thienyl]ethynyl]-3-hepten-1-yn-1-yl]-2thienyl] - (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-B



- RN 740810-68-8 CAPLUS
- CN 3-Butyn-2-ol, 2-methyl-4-[5-[(3E)-3-propyl-4-[[5-[(3E)-3-propyl-4-[[5-[[tris(1-methylethyl)silyl]ethynyl]-2-thienyl]ethynyl]-3-hepten-1-yn-1-yl]-2-thienyl]ethynyl]-3-hepten-1-yn-1-yl]-2-thienyl]- (CA INDEX NAME)

PAGE 1-B

- RN 864683-96-5 CAPLUS
- CN 3-Butyn-2-o1, 4-[5-[(3E)-5-ethyl-4-[2-(5-ethynyl-2-thienyl)ethynyl]-3-propyl-3-penten-1-yn-1-yl]-2-thienyl]-2-methyl- (CA INDEX NAME)

Double bond geometry as shown.

$$\underset{\text{Me}}{\text{Ne}} \overset{\text{OH}}{\sim} c = c \xrightarrow{\text{S}} c = c \xrightarrow{\text{E}} c = c \xrightarrow{\text{S}} c = c$$

- RN 864683-97-6 CAPLUS
- CN 3-Butyn-2-ol, 4-[5-[3E)-4-[2-[5-[3E)-4-[2-(5-ethynyl-2-thienyl) ethynyl]-3-propyl-3-hepten-1-yn-1-yl]-2-thienyl]-2-propyl-3-hepten-1-yn-1-yl]-2-thienyl]-2-methyl (CA INCEX NAME)

Double bond geometry as shown.

PAGE 1-B

- RN 864684-01-5 CAPLUS
- CN 3-Butyn-2-01, 4-[6-[(3E)-3-butyl-4-[2-(6-ethynyl-3-pyridinyl)ethynyl]-3-hepten-1-yn-1-yl]-3-pyridinyl]-2-methyl- (CA INDEX NAME)

Double bond geometry as shown.

- RN 864684-02-6 CAPLUS
- CN 3-Butyn-2-ol, 4-[6-[(3E)-3-butyl-4-[2-[6-[(3E)-3-butyl-4-[2-(6-ethynyl-3-pyridinyl)ethynyl]-3-hepten-1-yn-1-yl]-3-pyridinyl]-2-methyl- (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-B

- RN 864684-04-8 CAPLUS
- CN Thiophene, 2-[(3E)-3,4-dipropyl-6-(trimethylsilyl)-3-hexene-1,5-diyn-1-yl]-5-[2-[tris(1-methylethyl)silyl]ethynyl]- (CA INDEX NAME)

RN 864684-05-9 CAPLUS FACE 1-B

CN Thiophene, 2-[(3E)-4-ethynyl-3-propyl-3-hepten-1-yn-1-yl]-5-[2-[tris(1-methylethyl)silyl]ethynyl]- (CA INDEX NAME)

Double bond geometry as shown.

RN 864684-31-1 CAPLUS

CN Benzenanine, N-[4-(432)-3,4-dipropyl-6-(4-[2-[tris(1-nethylethyl)51y]]]ethyryl[phenyl]-3-hexene-1,3-diyn-1-yl]phenyl]-4-(3E)-3-propyl-4-[2-[4-[2-[tris(1-nethylethyl]]])-3-hexene-1,3-diyn-1-yl)+khynyl]-3-hepten-1-yn-1-yl]-N-[4-(3E)-3-propyl-4-[2-[4-[2-[tris(1-nethylethyl)51y]])-1-hexene-1-yn-1-yl]phenyl[phenyl]-3-hepten-1-yn-1-yl]phenyl] (CA INDEX NAME)

Double bond geometry as shown.

RN 864684-32-2 CAPLUS

CN Benzenanine, N-[4-[(3E)-5-ethyl-4-[2-(4-ethynylphenyl)ethynyl]-3-propyl-3-penten-1-yn-1-yl]bhenyl]-4-[(3E)-4-[2-(4-ethynylphenyl)ethynyl]-3-propyl-3-hepten-1-yn-1-yl]-N-[4-[(3E)-4-[2-(4-ethynylphenyl)ethynyl]-3-propyl-3-hepten-1-yn-1-yl]bhynl]- (CR INDEX IMME)

PAGE 1-A

RL: DEV (Device component use); IMF (Industrial manufacture); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(preparation of $\pi\mbox{-conjugated}$ aromatic ring-containing acetylene derivs, as organic

electroluminescent devices)

RN 740810-66-6 CAPLUS

CM 3-butyn-2-01, 4-[6-(18)-3-butyl-4-[2-[6-(18)-3-butyl-4-[2-[6-(18)-3-butyl-4-(2-[6-[2-18]-3-butyl-4-(2-[6-[2-18]-3-butyl-4-(2-[6-[2-18]-3-butyl-4-(2-[6-[2-18]-3-butyl-4-(2-[6-18]-3-butyl-3-buty

Double bond geometry as shown.

PAGE 1-C



RN 740810-69-9 CAPLUS

CH 3-Bettyn-2-01, 4-[5-[38]-4-[2-[5-[38]-5-athyl-4-[2-[5-[38]-5-athyl-3-propyl-4-[2-[5-[4-[5-[2-[tris (1-methylathyl)sily]]-bthianyl]-2-thianyl]-bthianyl]-2-thianyl]-2-thianyl]-3-propyl-3-pathan-1-yn-1-yl-2-thianyl]-2-propyl-3-pathan-1-yn-1-yl-2-thianyl]-2-methyl-1-gropyl-3-pathan-1-yn-1-yl-2-thianyl]-2-methyl-1-gropyl-3-pathan-1-yn-1-yl-2-thianyl-2-methyl-1-gropyl-3-pathan-1-yn-1-yl-2-thianyl-2-methyl-1-gropyl-3-pathan-1-yn-1-yl-2-thianyl-2-methyl-1-gropyl-3-pathan-1-yn-1-yl-2-thianyl-2-methyl-1-gropyl-3-pathan-1-yn-1-yl-2-thianyl-2-methyl-1-gropyl-3-pathan-1-yn-1-yl-2-thianyl-2-methyl-1-gropyl-3-pathan-1-yn-1-yl-2-thianyl-2-methyl-1-gropyl-3-pathan-1-yn-1-yl-2-thianyl-2-gropyl-3-pathan-1-yn-1-yl-2-thianyl-3-gropyl-3-pathan-1-yn-1-yl-2-thianyl-3-gropyl-3-pathan-1-yn-1-yl-2-thianyl-3-gropyl-3-pathan-1-yn-1-yl-2-thianyl-3-gropyl-3-pathan-1-yn-1-yl-2-thianyl-3-gropyl-3-pathan-1-yn-1-yl-2-thianyl-3-gropyl-3-pathan-1-yn-1-yl-3-gropyl-3-gropyl-3-gropyl-3-gropyl-3-gropyl-3-gropyl-3-gropyl-3-gropyl-

Double bond geometry as shown.

PAGE 1-C

--Ne

RN 864684-03-7 CAPLUS

CN 2-Thiophenecarbonitrile, 5-[2-[5-[3E)-5-ethyl-4-[2-[5-(3-hydroxy-3-methyl-1-butyn-1-yl)-2-thienyl]ethynyl]-3-propyl-3-penten-1-yn-1-yl]-2-thienyl]ethynyl]- (CA INDEX NAME)

PAGE 1-B

- RN 864684-06-0 CAPLUS
- CN 2,1,3-Benzothiadiazole, 4-[(3E)-3,4-dipropyl-6-[5-[2-[tris(1-methylethyl)sily]]e2-thienyl]-3-hexene-1,5-diyn-1-yl]-7-[(3E)-3-propyl-4-[2-[5-[2-[tris(1-methylethyl)sily]]ethynyl]-2-thienyl]ethynyl]-3-hepten-1-yn-1-yl]- (CA INDEX NAME)

Double bond geometry as shown.

- RN 864684-09-3 CAPLUS
- CN Thieno[3,4-b]pyrazine, 5-[(3E)-3,4-dipropyl-6-(2-thienyl)-3-hexene-1,5-diyn-1-yl]-2,3-diphenyl-7-[(3E)-3-propyl-4-[2-(2-thienyl)ethynyl]-3-hepten-1-yn-1-yl]- (CA INDEX NAME)

Double bond geometry as shown.

- RN 864684-21-9 CAPLUS
- CN Thiophene, 2-[(3E)-3,4-dipropyl-6-[4-[(3E)-3-propyl-4-[2-(5-[2-[tris[1-methylethyl]silyl]ethynyl]-2-thienyl]ethynyl]-3-hepten-1-yn-1-yl]phenyl]-3-hexne-1,5-diyn-1-yl]-5-[2-[tris[1-methylethyl]silyl]ethynyl]- (CA INDEX www)

Double bond geometry as shown.

PAGE 1-A

PAGE 1-B

- RN 864684-22-0 CAPLUS
- CN Benzene, 1-[(38)-3,4-dipropyl-6-[4-[2-[tris[1methylethyl]silyl]sthyyl]phenyl]-3-hexene-1,5-diyn-1-yl]-4-[(38)-3-propyl-4-[2-[4-[2-[tris[1-methylethyl]silyl]ethyyl]phenyl]ethynyl]-3-hepten-1-yn-1-yl]- (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A

$$\underbrace{ \underset{n-\Pr}{\bigoplus}_{E} \underset{n-\Pr}{\bigoplus}_{E} }$$

- RN 864684-23-1 CAPLUS
- CN Thiophene, 2-[(3E)-3,4-dipropyl-6-[4-[2-[tris(1methylethyl)silyl]ethynyl]phenyl]-3-hexene-1,5-diyn-1-yl]-5-[(3E)-3-propyl-4-[2-[4-[2-[tris(1-methylethyl)silyl]ethynyl]phenyl]ethynyl]-3-hepten-1-yn-1-y1]- (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-B

- RN 864684-24-2 CAPLUS
- CN Silane, [oxybis[4,1-phenylene[(3E)-3,4-dipropyl-3-hexene-1,5-diyne-6,1diyl]-4,1-phenylene-2,1-ethynediyl]]bis[tris(1-methylethyl)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

- RN 864684-25-3 CAPLUS
- ${\tt CN} \hspace{0.5cm} 2,2"-{\tt Bithiophene,} \hspace{0.1cm} 5-[\hspace{0.1cm} (3\Xi)-3,4-{\tt dipropyl-6-[4-[2-[tris\hspace{0.1cm} (1-1)]]{\tt CN}}]$ methylethyl)silyl]ethynyl]phenyl]-3-hexene-1,5-diyn-1-yl]-5'-[(3E)-3propyl-4-[2-[4-[2-[tris(1-methylethyl)silyl]ethynyl]phenyl]ethynyl]-3hepten-1-yn-1-yl]- (CA INDEX NAME)

Double bond geometry as shown.

- RN 864684-26-4 CAPLUS
- CN Naphthalene, 2-[(3E)-3,4-dipropyl-6-[4-[2-[tris(1- $\tt methylethyl) silyl] ethynyl] phenyl] -3 - hexene -1, 5 - diyn -1 - yl] -6 - [(3E) -3 - propyl -1 -3 - propy$ 1-yl]- (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN 864684-27-5 CAPLUS

CN Anthracene, 9-[(3E)-3,4-dipropyl-6-[4-[2-[tris]]-methylethylisily] ethyryl]phenyl]-3-hexene-1,5-diyn-1-yl]-10-[(3E)-3-propyl-4-[2-[4-[2-[tris[1-methylethyl]sily]]ethynyl]phenyl]ethynyl]-3-hepten-1-yn-1-yl]- (CA INDEX NAME)

Double bond geometry as shown.

- RN 864684-28-6 CAPLUS
- CN 2,1,3-Benrothiadiazole, 4-[(35)-3,4-dipropyl-6-[4-[2-[tris(1-methylethylisily]]gethyyl]phenyl]-3-hexene-1,5-diyn-1-yl]-7-[(35)-3-propyl-4-[2-[4-[2-[tris(1-methylethyl)sily]]ethnyl]ghenyl]ethnyl]-3-hepten-1-yn-1-yl]- (CA INDEX NAME)

Double bond geometry as shown.

RN 864684-29-7 CAPLUS

CN Pyridazine, 3-[(3E)-3,4-dipropyl-6-[4-[2-[tris(1-methylethyl)silyl]ethyyl]phenyl]-3-hexene-1,5-diyn-1-yl]-6-[(3E)-3-propyl-4-[2-[4-[2-[tris(1-methylethyl)silyl]ethyyl]phenyl]ethyyl]-3-hepten-1-yn-1-yl]- (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-B

- RN 864684-30-0 CAPLUS
- CN Benzene, 1-[(3E)-3,4-dipropyl-6-[4-[2-[tris|1methylethyl]silyl]bthynyl]bthynyl]-3-hexene-1,5-diyn-1-yl]-3-[(3E)-5-ethyl3-propyl-4-[2-[4-[2-[tris|1penten-1-yn-1-yl]-5-[(3E)-3-propyl-6-[2-[4-[2-[tris|1methylethyl]silyl]ethynyl]bthynyl]-3-hepten-1-yn-1-yl]- (CA INDEX
 NNE)

Double bond geometry as shown.

PAGE 1-A

PAGE 1-8

RN 864684-33-3 CAPLUS

methoxyphenyl]ethynyl]phenyl]ethynyl]-3-propyl-3-hepten-1-yn-1-yl]phenyl]-(CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-B

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS

18 ANSWER 6 OF 39 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2005:630411 CAPLUS Full-text

DOCUMENT NUMBER: 143:346727

TITLE: [2.2]Paracyclophane/Dehydroannulene Hybrids: Probing the Aromaticity of the Dehydro[14]annulene Framework AUTHOR(S): Hinrichs, Heino; Fischer, Axel K.; Jones, Peter G.;

Hopf, Henning; Haley, Michael M.

CORPORATE SOURCE: Department of Chemistry, University of Oregon, Eugene,

OR, 97403-1253, USA

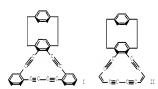
SOURCE: Organic Letters (2005), 7(17), 3793-3795

CODEN: ORLEF7; ISSN: 1523-7060

PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal

LANGUAGE: English
OTHER SOURCE(S): CASREACT 143:346727

GT



AB The synthesis of [2.2]paracyclophane/dehydro[14]annulene hybrids I and II is reported. Comparison of the proton NMR spectra of I and II with their open precursors and with related model compds. reveals the pronounced effect of macrocycle formation upon the cyclophane protons EIS/HIF, which lie above the shielding cone of the diarropic [14]annulene molety.

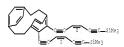
IT 865430-27-59

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(paracyclophane dehydroannulene hybrids probing aromaticity of dehydroannulene framework)

RN 865470-27-5 CAPLUS

CN Tricyclo[6.2.2.24,7]hexadeca-4,6,10,12,13,15-hexaene, 5,6-bis[(3%)-6-(trimethylsilyl)-3-hexene-1,5-diyn-1-yl]- (CA INDEX NAME)



OS.CITING REF COUNT: 8 THERE ARE 8 CAPLUS RECORDS THAT CITE THIS RECORD

(8 CITINGS)

REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS

RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 7 OF 39 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2005:354187 CAPLUS Full-text

DOCUMENT NUMBER: 143:333

TITLE: Cytotoxicities, cell cycle and caspase evaluations of

1,6-diaryl-3(2)-hexen-1,5-diynes,

2-(6-aryl-3(Z)-hexen-1,5-diynyl)anilines and their

derivatives

AUTHOR(S): Lin, Chi-Fong; Lo, Yu-Hsiang; Hsieh, Ming-Chu; Chen,

Yi-Hua; Wang, Jeh-Jeng; Wu, Ming-Jung

CORPORATE SOURCE: School of Chemistry, Kaohsiung Medical University,

Kaohsiung, Taiwan

SOURCE: Bioorganic & Medicinal Chemistry (2005), 13(10),

3565-3575

CASREACT 143:333

CODEN: BMECEP; ISSN: 0968-0896

CODEN: BMECEP
PUBLISHER: Elsevier Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S):

AB A series of comptos, showed growth inhibition effects on a full panel of 60 human cancer cell lines, and most of the average IC50 values of the indicated analogs were from <0.01 to 96.6 μM, in which a 2-thienyl analog and the thioanisole analog revealed the highest cytotoxic activity with the cancer cell lines at 10-7M concentration range. During the cell cycle anal, a moderate to high appotchic progress induction was shown by several compared with the control, which 2-16-(2-thieryl)-3(2)-hexer-1,5-dipyn)aniline [I] showed the highest apoptotic effect. I and the thioanisole analog displayed a significant GZ/M phase arrest in the cell growth cycle compared with other derivs., which the proportions of the GZ/M phase cells were accumulated to 71.5% and 82.6%, resp. Moreover, the colorimetric assay of the I and the thioanisole analog also provided advanced eridence to the relationship between

the compds. and the caspase-3 enzyme, which was one of the major promoters of apoptotic effect.

IT 850619-13-7P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(cytotoxicities, cell cycle and caspase evaluations of

1,6-diaryl-3(Z)-hexen-1,5-diynes, 2-(6-aryl-3(Z)-hexen-1,5-diynyl)anilines and their derivs.)

RN 852619-13-7 CAPLUS

CN Benzenamire, 2,2'-[1,4-phenylenedi-(3Z)-3-hexene-1,5-diyne-6,1-diyl]bis-(9CI) (CA INDEX NAME)

Double bond geometry as shown.

OS.CITING REF COUNT: 15 THERE ARE 15 CAPLUS RECORDS THAT CITE THIS

RECORD (15 CITINGS)

REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS
RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

RECORD, ADD CITATIONS AVAILABLE IN THE RE :

L8 ANSWER 8 OF 39 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2005:17022 CAPLUS Full-text

DOCUMENT NUMBER: 142:113747

TITLE: Preparation of aryl-substituted acyclic enedigne

compounds as antitumor agents
INVENTOR(S): Wn. Ming-Jung: Lin. Chi-Fong

INVENTOR(S): Wu, Ming-Jung; Lin, Chi-Fong
PATENT ASSIGNEE(S): Kaohsiung Medical University, Taiwan

SOURCE: U.S. Pat. Appl. Publ., 41 pp. CODEN: USXXCO

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE | | |
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| PAILNI NO. | WIND | DAID | APPLICATION NO. | DRIE | | |
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| US 7332623 | B2 | 20080219 | | | | |
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                                                                                        ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
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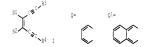
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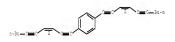
- AB This invention provides aryl-substituted acyclic enediyne compds. of formula (I) or pharmaceutically acceptable salts or solvates thereof (wherein Ri = 22 = 8 or RI and R2 together form a noisely represented by the formula (O or O); R3 = (un)substituted C4-30 alkyl or C3-30 aryl; R4 = (un)substituted C3-30 aryl; with the proviso that R3 is not Bu, pentlyl, tetrahydropyraryloxymethyl, and with the proviso that R3 is not Bu when R1 = R2 = H and R4 = Ph). These compds. found to have inhibitory activities against topoisemerase I or act as a S phase or G2/M phase blocker and were also tested in vitro in articancer assay. 4-(12)-3-Dodecen-1,5-diynyl)-1-trifluoromethylbenzene and 2-(12)-3-dodecen-1,5-diynyl)-pyrazine showed ICSO of 4.32 and 5.33 µs/mL against human solid tumor R3 cells.
- IT 457914-65-7P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USSS (Uses)

(preparation of aryl-substituted acyclic enediyne compds. as antitumor agents, topoisomerase I inhibitors, or S phase or G2/M phase blockers)

- RN 457914-65-7 CAPLUS
- CN Benzene, 1,4-di(3Z)-3-decene-1,5-diyn-1-yl- (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 9 OF 39 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2005:15944 CAPLUS Full-text

DOCUMENT NUMBER: 142:113746

TITLE: Preparation of aryl-substituted acyclic enediyne compounds as antitumor agents and pharmaceutical

compositions comprising them

INVENTOR(S): Wu, Ming-Jung; Lin, Chi-Fong
PATENT ASSIGNEE(S): Kachsiunc Medical University, Taiwan

U.S. Pat. Appl. Publ., 41 pp. CODEN: USXXCO

DOCUMENT TYPE: Patent
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2 PATENT INFORMATION:

SOURCE:

| US | US 20050004211 | | | A1 20050106 | | | | | | US 21 | 004- | 20040518 | | | | | |
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PATENT NO.

IIS 20050004211

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APPLICATION NO.

A1 20050106 US 2004-847659

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WO 2004-US29336 W 20040909 WO 2004-HS29337 W 20040909 WO 2004-US29338 W 20040909 US 2006-488204 A1 20060718

OTHER SOURCE(S): MARPAT 142:113746



AB A pharmaceutical compns, comprises anyl-substituted acyclic enedigne compds. of formula (I) or pharmaceutically acceptable salts thereof (wherein R1 = R2 = H; or R1 and R2 together form a moiety represented by the formula Q or Q1; R3 = (un)substituted C4-30 alkyl or C3-30 aryl; R4 = (un)substituted C3-30 aryl; with the proviso that R3 is not Bu, pentyl, tetrahydropyranyloxymethyl, tetrahydropyranyloxypropyl or Ph when R1 = R2 = H and R4 = o-cyanophenyl; and with the proviso that R3 is not Bu when R1 = R2 = H and R4 = Ph). The pharmaceutical composition is used to treat a subject afflicted with a tumor/cancer by inhibiting topoisomerase I activities or blocking the S phase or G2/M phase of the tumor/cancer cells. The tumor/cancer cell is selected from leukemia cancer cells, non-small-cell lung cancer cells, col on cancer cells, CNS cancer cells, melanoma cancer cells, ovarian cancer cells, renal cancer cells, prostate cancer cells and breast cancer cells. These compds. were tested in vitro for inhibitory activities against topoisomerase I, cell cycle at a S phase or G2/M phase blocker, and anticancer growth. For example, 4-((Z)-3-Dodecen-1,5-diynyl)-1-trifluoromethylbenzene and 2-((Z)-3-dodecen-1.5-divnvl)pyrazine showed IC50 of 4.32 and 5.93 Mg/mL against human solid tumor KB cells

IT 457914-65-72

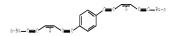
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES

(preparation of anyl-substituted acyclic enedigne compds, as antitumor agents, topoisomerase I inhibitors, or S phase or G2/M phase blockers)

RN 457914-65-7 CAPLUS

CN Benzene, 1,4-di(3Z)-3-decene-1,5-divn-1-vl- (CA INDEX NAME)

Double bond geometry as shown.



THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD OS.CITING REF COUNT: 3 (4 CITINGS)

L8 ANSWER 10 OF 39 CAPJUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2004:480115 CAPJUS <u>Pull-text</u> DCCUMENT NUMBER: 141:190674

TITLE: Synthesis of Conjugated Oligomers Having Aromatic and Enediyne Units Alternately in the Backbone that Show

Intense Fluorescence Emission

AUTEOR(S): Nakano, Yuuki; Ishizuka, Kenichi; Muraoka, Kenji; Ohtani, Eirovuki; Takavama, Yuuki; Sato, Fumie

CCRPORATE SOURCE: Department of Biomolecular Engineering, Tokyo
Institute of Technology, Midori, Yokohana, Kanagewa,

226-8501, Japan

SOURCE: Organic Letters (2004), 6(14), 2373-2376

CODEN: ORLEF7; ISSN: 1523-7060

PUBLISHER: American Chemical Society

DCCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 141:190674

GΙ

$$(\operatorname{Me}_2\operatorname{CH})_3\operatorname{S3} = \underbrace{\operatorname{C} = \operatorname{C} - \operatorname{X} - \operatorname{C} = \operatorname{C}}_{\operatorname{N}} \underbrace{\operatorname{R}}_{\operatorname{n}} \operatorname{C} = \operatorname{C} - \operatorname{X} - \operatorname{C} = \operatorname{C} \underbrace{\operatorname{Me}}_{\operatorname{OH}} \operatorname{Me}$$

AB Synthesis and fluorescence properties of K-conjugated compds. I (n = 1 - 3; X = 1,4-phenylene, 2,5-pyridine, 2,5-thiophene; R = n-Pr, n-Bn) having alternately an aromatic or heteroarom. ring and an enediyme unit in the backbone are described.

IT 740810-63-1P 740810-62-2P 740810-64-4P 740810-65-5P 740810-67-7P 740810-68-8P

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation and absorption and fluorescence spectra of conjugated

oligomers $\mbox{having aromatic (or heteroaron.) and enediyne units alternately in the} \\$

backbone) RN 740810-61-1 CAPLUS

CN 3-Butyn-2-ol, 2-methyl-4-[4-[(3E)-3-propyl-4-[2-[4-[2-[tris(1-methylethyl)sily]]ethynyl]phenyl]ethynyl]-3-hepten-1-yn-1-yl]phenyl]- (CA INCEX NAME)

Double bond geometry as shown.

PAGE 1-A

PAGE 1-B



RN 740810-62-2 CAPLUS

CN 3-Butyn-2-ol, 2-methyl-4-[4-[(3E)-3-propyl-4-[[4-[(3E)-3-propyl-4-[[4-[[tris(1-methylethyl)sily]]ethynyl]phenyl]ethynyl]-3-hepten-1-yn-1yl]phenyl]ethynyl]-3-hepten-1-yn-1-yl]phenyl]- (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-B

RN 740810-64-4 CAPLUS

CN 3-Butyn-2-ol, 4-[6-[(3E)-3-butyl-4-[2-[6-[2-[tris[1-methylethyl)silyl]ethynyl]-3-pyridinyl]ethynyl]-3-hepten-1-yn-1-yl]-3-pyridinyl]-2-methyl- (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A

(1-Pr) 351—(=-Pr

(1-Pr) 351—(=-Pr)

(1-Pr) 351—(=-Pr)



- RN 740810-65-5 CAPLUS
- CN 3-Butyn-2-ol, 4-[6-[(3E)-3-butyl-4-[2-[6-[(3E)-3-butyl-4-[2-[6-[(2-[tris(1-methylethyl)silyl]ethynyl]-3-pyridinyl]ethynyl]-3-hepten-1-yn-1-yll-3-pyridinyl]ethynyl]-3-hepten-1-yn-1-yll-3-pyridinyl]-2-methyl- (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-B

- RN 740810-67-7 CAPLUS
- CN 3-Butyn-2-ol, 2-methyl-4-[5-[(3E)-3-propyl-4-[(5-[[tris(1-methylethyl)silyl]ethynyl]-2-thienyl]ethynyl]-3-hepten-1-yn-1-yl]-2-thienyl]- (CA INDEX NAME)

Double bond geometry as shown.

Me

- RN 740810-68-8 CAPLUS
- CN 3-Butyn-2-ol, 2-methyl-4-[5-[(3E)-3-propyl-4-[[5-[(3E)-3-propyl-4-[[5-[[tris(1-methylethyl)sily]]-thienyl]-2-thienyl]-3-hepten-1-yn-1-yl]-2-thienyl]ethynyl]-3-hepten-1-yn-1-yl]-2-thienyl]- (CA INDEX NAME)

Double bond geometry as shown.

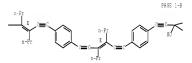
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PAGE 1-B

- IT 740810-63-39 740810-66-69 746416-63-39
- RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
 (preparation and absorption and fluorescence spectra of conjugated oligomers
 - having aromatic (or heteroarom.) and enedigne units alternately in the backbone)
- RN 740810-63-3 CAPLUS
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Double bond geometry as shown.

PAGE 1-A



PAGE 1-C



- RN 740810-66-6 CAPLUS
- CN 3-Butyn-2-ol, 4-[6-[138]-3-butyl-4-[2-[6-[138]-3-butyl-4-[2-[6-[26]-138]-3-butyl-4-[2-[6-[2c]-tris|1-methylethyl]silyl]sthynyl]-3-pyridinyl]sthynyl]-3-pyridinyl]ethynyl]-3-pyridinyl]ethynyl]-3-pyridinyl]ethynyl]-3-pyridinyl]ethynyl]-3-hpyten-1-yn-1-yl]-3-pyridinyl]ethynyl]-3-hpyten-1-yn-1-yl]-3-pyridinyl]-2-methyl- (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-B



- RN 740810-69-9 CAPLUS
- CM 3-Butyn-2-ol, 4-[5-[(3E)-4-[2-[5-[(3E)-5-ethyl-4-[2-[5-[(3E)-5-ethyl-3-propyl-4-[2-[5-[(3E)-5-ethyl-3-propyl-4-[2-[5-[(3E)-5-ethyl-3-propyl-3-penten-1-yn-1-yl]-2-thienyl]ethynyl]-3-propyl-3-penten-1-yn-1-yl]-2-thienyl]ethynyl]-3-propyl-3-penten-1-yn-1-yl]-2-thienyl]ethynyl]-3-propyl-3-penten-1-yn-1-yl]-2-thienyl]-2-pethyl-(CA INDEX NAS)

Double bond geometry as shown.

n-Pr E C=C S C=C E C S C=C Rd be

PAGE 1-C

__Me

OS.CITING REF COUNT: 20 THERE ARE 20 CAPLUS RECORDS THAT CITE THIS RECORD (20 CITINGS)

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 11 OF 39 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2004:328256 CAPLUS Full-text
DOCUMENT NUMBER: 141:54000
TITLE: Solid-phase wonthesis of oligo(tria)

TITLE: Solid-phase synthesis of oligo(triacetylene)s and oligo(phenylenetriacetylene)s employing Sonogashira and Cadiot-Chodkiewicz-type cross-coupling reactions AUTBOR(S): Utesch, Nils F.; Diederich, Francois; Boudon, Corinne;

Gisselbrecht, Jean-Paul; Gross, Maurice

CORPORATE SOURCE: Laboratorium fuer Organische Chemie, ETH-Hoenggerberg,

HCI, Zurich, CH-8093, Switz.

SOURCE: Helvetica Chimica Acta (2004), 87(3), 698-718

CODEN: HCACAV; ISSN: 0018-019X Verlag Helwetica Chimica Acta

DOCUMENT TYPE: Journal LANGUAGE: English

PUBLISHER:

OTHER SOURCE(S): CASREACT 141:54000

AB The polymer-supported synthesis of poly(triacetylene)-derived monodisperse oligomers is described, using P80-catalyzed Sonogashira and Cadiot-Chockiews/crtype cross-couplings as the key steps in the construction of the acetylenic scaffolds. Merrifield resin functionalized with a 1-(4-iodary)Itriazene linker was chosen as the polymeric support. The linker selection was made based on the results of several model studies in the liquid phase. For the solid-support synthesis of p-ICGHAC.tplbond.CDCGEOSIMe2CMe3):CCGH2OSIMe2CMe3.CCGH2OSIMe2CMe3.

I(GSR4.tp]bond.CC(GROSIMe2CMe3)+C(GROSIMe2CMe3)C,tp]bond.C(ps)Me3 [I, n=2-4] a set of only three reactions was required: (i) Pd0-catalyzed Scnogsshira cross-coupling, (ii) Me35i-alkyze deprotection by protodesilylation, and (iii) cleavage of the linker with liberation of I. The longest-wavelength absorption maxima of I (n=1-4) shift bathochromically with increasing oligoratic length, from hax 337 mm (I, n=1) to 384 mm (I, n=6). Based on the electronic absorption data, the effective conjugation length (ECL) of the oligo(phenylene triacetylene)s is estimated to involve at least four monomer units and 40 C-atoms. π -Electron conjugation in these oligomers is less efficient than in

Me3Si[06H4C.tplbond.CC(CH2OSiMe2CWe3]:C(CH2OSiMe2CWe3)C.tplbond.C] nsiMe3 (II) due to poor transmittance of π -electron delocalization by the Ph rings inserted into the eligence backbone. Similar conclusions were drawn from the electrochem. properties of the two oligomeric series as determined by cyclic (CV) and rotating-disk voltammetry. In sharp contrast to II, I are strongly fluorescent, with the highest quantum yield Φ F = 0.69 neasured for I [n = 3]. Mhereas the Sonogashira cross-coupling on solid support proceeded snoothly, optimal conditions for alkyme-alkyme cross-coupling reactions employing Pd0-catalyzed Cadiot-Chodklewicz conditions still remain to be developed.

IT 554459-82-09 554459-63-19 554459-64-0P

Ri: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (solid-phase synthesis of oligo (triacetylene)s and oligo (phenylenetriacetylene)s by Sonogashira and Cadiot-Chodkiewicz cross-couling reactions)

RN 554459-62-0 CAPLUS

CN 4,9-Dioxa-3,10-disiladodeo-6-ene, 6-[(4-[(3B)-3,4-bis[[[(1,1-disethylethyl)disethylsiy]loxylpethyl]-6-(4-dodophenyl)-3-hexene-1,5-diynyl]phenyl]-2,2,3,3,10,10,11,11-octamethyl-7-[(trimethylsiyl)ethynyl]-, (6B)- [901] (CA INDEX NAME)

Double bond geometry as shown.

T-Bu Si-Me

PAGE 1-A

PAGE 1-A

PAGE 1-A

PAGE 1-A

PAGE 1-B

~I

RN 554459-63-1 CAPLUS

CN 4,9-Dioxa-3,10-disiladodec-6-ene, 6-[[4-[(3E)-6-[4-[(3E)-3,4-bis[[[(1,1-dimethylethyl)dimethylethyl)dimethylethyl)dimethylethylldimethylethylldimethylethylloxylmethyll-3-hexene-1,5-diynyllphenyllethynyll-7,2,3,3,10,10,11,11-octamthyl-7-[[trzimethylsityll)ethynyll-(6E)-[(9E) (GA INDEX MAME)

PAGE 1-B

RN 554459-64-2 CAPLUS

CN 4,9-Dioxa-3,10-disiladodec-6-ene, 6-[[4-[(3E)-6-[4-[(3E)-3,4-bis[[[(1,1dimethylethyl)dimethylsilyl]oxy]methyl]-6-(4-iodophenyl)-3-hexene-1,5diynyl]phenyl]-3,4-bis[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]-3hexene-1,5-diynyl]phenyl]ethynyl]-7-[[4-[[3E]-3,4-bis[[[[1,1-dimethylethyl]dimethylsilyl]oxy]nethyl]-6-(trimethylsilyl)-3-hexene-1,5diynyl]phenyl]ethynyl]-2,2,3,3,10,10,11,11-octamethyl-, (6E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

II 764916-39-8P

RL: SPN (Synthetic preparation); PREP (Preparation) (solid-phase synthesis of oligo(triacetylene)s and oligo(phenylenetriacetylene)s by Sonogashira and Cadiot-Chodkiewicz cross-coupling reactions) RM 704916-29-0 CAPLUS

CN 4,9-Dioxa-3,10-disiladodec-6-ene, 6,6'-(1,4-phenylenedi-2,1ethynediyl)bis[7-[(4-iodophenyl)ethynyl]-2,2,3,3,10,10,11,11-octamethyl-, (6E,6°E)- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

OS.CITING REF COUNT: 6 THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD

(6 CITINGS)

REFERENCE COUNT: 93 THERE ARE 93 CITED REFERENCES AVAILABLE FOR THIS RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 12 OF 39 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2003:1000504 CAPLUS Full-text

DOCUMENT NUMBER: 141:242819

TITLE: Product class 4: organometallic complexes of copper AUTHOR(S): Heaney, E.; Christie, S.

CORPORATE SOURCE: Dept. of Chemistry, University of Loughborough,

CORPORATE SOURCE: Dept. of Chemistry, University of Loughborough, Loughborough, LE11 3TU, UK

SCURCE: Science of Synthesis (2004), 3, 305-662

CODEN: SSCYJ9

PUBLISHER: Georg Thieme Verlag
DCCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB A review. The use of copper and related complexes in applications to organic synthesis is reviewed.

IT 213483-15-5P 375366-59-98

RL: SPN (Synthetic preparation); PREP (Preparation)

(applications of copper and organocopper complexes to organic synthesis)

RN 219483-15-5 CAPLUS

 ${\tt CN} \quad {\tt Zinc, \ [[diethyl \ 4,4'-[[10,20-bis[(3E)-3,4-bis[][(1,1-bis[-10,20-bis[-1$

dimethylethyl)dimethylsilyl]oxy]methyl]-6-(trimethylsilyl)-3-hexene-1,4diynyl]-21H,23H-porphine-5,15-diyl-

KN21, KN22, KN23, KN24]bis(4,1-

phenyleneoxy)]bis[butanoato]](2-)]-, (SP-4-1)- (9CI) (CA INDEX NAME)

PAGE 1-A

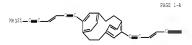
PAGE 1-B

__OEt

RN 375366-59-9 CAPLUS

CN Tricyclo[8.2.2.24,7]hexadeca-4,6,10,12,13,15-hexaene,

5,11-bis[6-(trimethylsily1)-3-hexene-1,5-diyn-1-yl]-, stereoisomer (CA INDEX NAME)



PAGE 1-B

■C—SiMer

OS.CITING REF COUNT: 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD

(5 CITINGS)

REFERENCE COUNT: 1706 THERE ARE 1706 CITED REFERENCES AVAILABLE FOR

THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L8 ANSWER 13 OF 39 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2003:592887 CAPLUS Full-text

DOCUMENT NUMBER: 140:20929

TITLE: Third-order nonlinear optical properties of in-backbone substituted oligo(triacetylene)

chromophores

AUTHOR(S): Concilio, S.; Biaggio, I.; Gunter, P.; Piotto, S. P.;

Edelmann, M. J.; Raimundo, J.-M.; Diederich, F.

CORPORATE SOURCE: Swiss Federal Institute of Technology, Institute of Quantum Electronics, Nonlinear Optics Laboratory,

ETH-Honggerberg, Zurich, CH-8093, Switz.

SOURCE: Journal of the Optical Society of America B: Optical

Physics (2003), 20(8), 1656-1660

CODEN: JOBPDE; ISSN: 0740-3224

PUBLISHER: Optical Society of America

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A new approach to tuning the nonlinear optical properties of hybrid oligo(triacetylene) compds, was studied. The method is based on the insertion of a central heterospacer group between two [5]-hex-sneen_f,5-dipme moisties. A significant increase in the 2nd hyperpolarizability y is expected if the central spacer fragment is an extended conjugated chromophore. The authors present mols, with enhanced 2nd hyperpolarizability caused by the presence of highly conjugated spacer groups, which increase the overall n-electron delocalization. Some metal complexes obtained from the coordination of these hybrid oligomers to transition-metal centers also were studied and revealed substantial differences in the capacities of the metal centers to act as electronic bridges. Finally, theor, predictions of the relative differences in the 2nd hyperpolarizabilities of the new spacer compds, are in good agreement with the expol. results.

IT 628738-17-0 628738-18-1 628738-19-2

628138-20-5

RL: PRP (Properties)

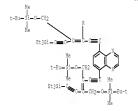
(third-order nonlinear optical properties of in-backbone substituted oligo(triacetylene) chromophores)

RN 628738-17-0 CAPLUS

CN Quinoxaline, 5,8-bis[3,4-bis[[[(1,1-

dimethylethyl)dimethylsilyl]oxy]methyl]-6-(triethylsilyl)-3-hexene-1,5-diynyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A

RN 628738-18-1 CAPLUS

CN 2,1,3-Benzothiadiazole, 4,7-bis[3,4-bis[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]-6-(triethylsilyl)-3-hexene-1,5-

diyn-1-yl]- (CA INCEX NAME)

PAGE 1-A

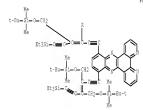


- RN 628738-19-2 CAPLUS
- CN Quinoxaline, 5,8-bis[3,4-bis[[[(1,1dimethylethyl)dimethylsilyl]oxy|methyl]-6-(triethylsilyl)-3-hexene-1,5-diyn-1-yl]-2,3-diphenyl- (CA INDEX NAME)

PAGE 1-A

- RN 628738-20-5 CAPLUS
- CN Dipyrido[3,2-a:2',3'-c]phenazine, 10,13-bis[3,4-bis[[[(1,1dimethylethyl)dimethylsilyl]oxy]methyl]-6-(triethylsilyl)-3-hexene-1,5diynyl] - (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A

- OS.CITING REF COUNT: THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)
- REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L8 ANSWER 14 OF 39 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2003:491916 CAPLUS Full-text

DOCUMENT NUMBER: 139:395637

SOURCE:

TITLE:

Synthesis of differentially protected/functionalised acetylenic building blocks from p-benzoquinone and their use in the synthesis of new enedignes

AUTHOR(S): Sankararaman, Sethuraman; Srinivasan, Manivannan CORPORATE SOURCE: Department of Chemistry, Indian Institute of Technology Madras, Madras, 600 036, India

Organic & Biomolecular Chemistry (2003), 1(13),

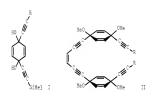
2388-2392

CODEN: OBCRAK; ISSN: 1477-0520

PUBLISHER: Royal Society of Chemistry DOCUMENT TYPE: Journal

LANGUAGE: English
OTHER SOURCE(S): CASREACT 139:395637

GI



- AB Sequential addition of two different lithium acetylides to p-benzoquinone yielded disstereomeric mixts, of 1,4-diethyyl/cyclohexa-2,5-diene-1,4- diols I [R = [Me2CH]851, [Et0)2CH] with different protective/functional groups on the two ethyyyl groups. Selective monodeprotection of the di-Me ethers of I to the corresponding terminal acetylenes followed by Pd(0)-mediated coupling with (Z)-1,2-dichloroethene yielded new enedignes II bearing cyclohexa-2,5-diene units.
- IT 628235-00-99

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of cyclohexadienyl enediynes via double addition of

functionalized
lithium acetylides to benzoquinone, selective monodeprotection and

- coupling with dichloroethene)
 RN 626235-20-9 CAPLUS
- CN Silane, [(3%)-3-hexens-1,5-diyne-1,6-diylbis[(cis-1,4-dimethoxy-2,5-cyclohexadiene-1,4-diyl)-2,1-ethynediyl]]bis[tris(1-methylethyl)- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.

PAGE 1-B

__Si(Pr-i)3

IT 606035-21-NP 626235-22-1P

RL: SPM (Synthetic preparation); PREP (Preparation)

 $(preparation\ of\ cyclohexadienyl\ enedignes\ via\ double\ addition\ of\ functionalized$

lithium acetylides to benzoquinone, selective monodeprotection and coupling with dichloroetheme)

- RN 626235-21-0 CAPLUS
- CN 1,4-Cyclohexadiene, 3,3'-(3Z)-3-hexene-1,5-diyne-1,6-diylbis[6-(3,3-diethoxy-1-propynyl)-3,6-dimethoxy-, (cis,cis)- (9CI) (CA INDEX NAME)

Relative stereochemistry. Couble bond geometry as shown.



PAGE 1-B

__OEt

- RN 626235-22-1 CAPLUS
- CN 1,4-Cyclohexadiene, 3,3'-(3Z)-3-hexene-1,5-diyne-1,6-diylbis[6-ethynyl-3,6-dimethoxy-, (cis.cis)- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Couble bond geometry as shown.



OS.CITING REF COUNT: 6 THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD
(6 CITINGS)

REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS
RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

18 ANSWER 15 OF 39 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2003:345601 CAPLUS Full-text

DOCUMENT NUMBER: 139:149735

TITLE: Butterfly topologies: new expanded carbon-rich

organometallic scaffolds

AUTHOR(S): Laskoski, Matthew; Roidl, Gaby; Ricks, Holly L.;

Morton, Jason G. M.; Smith, Mark D.; Bunz, Uwe H. F.

CORPORATE SOURCE: USC NanoCenter, Department of Chemistry and Biochemistry, The University of South Carolina,

Columbia, SC, 29208, USA

SOURCE: Journal of Organometallic Chemistry (2003), 673 (1-2),

13-24

CODEN: JORCAI; ISSN: 0022-328X

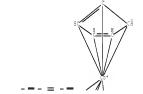
PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 139:149735

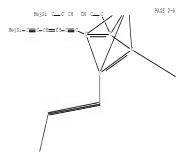
GΙ



PAGE 1-A

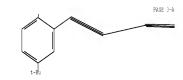
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

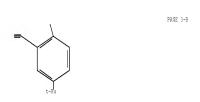
- AB Starting from either (tetraethymylcyclobutadiene)cyclopentadienylcobalt or [1,2-diethymyl-3,4-(2-dioxnyl)cyclobutadiene)cyclopentadienylcobalt a sequence of copper and Rd-catalyzed couplings of the Sqlinton and Rec-Cassar-Sonogashira-Hagihara type furnished five bow-tie shaped doubly annelated dehydroanulenes, the largest of with featured a (formal) 7,8113,14:25,26:31,32-betra(4'alkyl-1',2'-bencoltricyclo[18,16,02,19]hexatriosea-3,5,9,11,5,17,21,23,27,29,33,35-dodcayne-1,7,13,19,25.7]-betwaene hydroarbon ligand with a cyclopentadienylcobalt-stabilized cyclobutadiene complex as its central unit (I) (R = i-Pr, n-Bs). Single crystal X-ray structures of two of the smaller butterfiles (II) and (III) are reported and their surprising solid-state paxing is discussed herein. The solid state structure of III was also examined via PM column
- IT 349453-20-9P
 - RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 - (preparation, crystal structure, and PM3 calcn. of butterfly dehydro[14]annulenes and dehydro[18]annulenes containing a cyclobutadiene(cyclopentadienyl)cobalt unit)
- RN 349453-20-9 CAPLUS
- CN Cobalt, [n5-2,4-cyclopentadien-1-yl][[[(1,2,2a,18a-n])-3,4,9,10,11,12,17,18-octadehydro-7,14-bis(1,1-dimethylethyl)dibenzo[a,i]cyclobuta[e]cyclotetradecene-1,2-diyl]di-(33)-3-bezene-1,5-diyme-6,1-diyl]bis[trinethylsilane]]- [9CI] (OA INDEX NAME)



PAGE 2-B







OS.CITING REF COUNT:

THERE ARE 11 CAPLUS RECORDS THAT CITE THIS

RECORD (11 CITINGS)

REFERENCE COUNT:

THERE ARE 81 CITED REFERENCES AVAILABLE FOR THIS 81 RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 16 OF 39 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2003:234291 CAPLUS Full-text DOCUMENT NUMBER: 139:85055

TITLE: Acetylenic scaffolding on solid support:

Poly(triacetylene)-derived oligomers by Sonogashira and Cadiot-Chodkiewicz-type cross-coupling reactions

Utesch, Nils F.; Diederich, Francois

CORPORATE SOURCE: Laboratorium fur Organische Chemie, ETH-Honggerberg,

HCI, Zurich, CH-8093, Switz.

Organic & Biomolecular Chemistry (2003), 1(2), 237-239 SOURCE:

CODEN: OBCRAK; ISSN: 1477-0520 Royal Society of Chemistry PUBLISHER:

DOCUMENT TYPE: Journal

AUTHOR(S):

LANGUAGE: English

OTHER SOURCE(S): CASREACT 139:85055

AB Synthesis of poly(triacetylene)-derived oligomers by Pd(0)-catalyzed Sonogashira and Cadiot-Chodkiewicz-type cross-coupling reactions on solid support is reported. Oligo(phenylene triacetylene)s, e.g., I[4-C6H4C.tplbond.CCR:CRC.tplbond.C]nSiMe3 (R = CH2OSiButMe2, n = 1, 2, 3, 4) members of a new class of linearly π-conjugated oligoners with all-C backbones, feature very high fluorescence intensities.

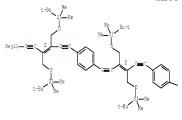
II 554959-62-0P 554459-62-3P 554459-64-2P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (electronic absorption and emission, UV/VIS spectra; poly(triacetylene)-derived oligomers are prepared by Sonogashira and Cadiot-Chodkiewicz-type Pd-catalyzed cross-coupling reactions)

RN 554459-62-0 CAPLUS

CN 4,9-Dioxa-3,10-disiladodec-6-ene, 6-[[4-[(3E)-3,4-bis[[[(1,1dimethylethyl)dimethylsilyl]oxy]methyl]-6-(4-iodophenyl)-3-hexene-1,5diynyl]phenyl]ethynyl]-2,2,3,3,10,10,11,11-octamethyl-7-[(trinethylsilyl)ethynyl]-, (6E)- (9CI) (CA INDEX MAME)

PAGE 1-A



PAGE 1-B PAGE 1-B

****I

RN 554459-63-1 CAPLUS

CN 4,9-Dioxa-3,10-disiladodec-6-ene, 6-[[4-[[3E]-6-[4-[3E]-5,4-bis][[[1,1-dinethylethyl]dinethylsily]]oxy]nethyl1-6-[4-iodohenyl]-5-hexene-1,5-diynyl]phenyl]-3,4-bis[[[[1,1-dinethylethyl]dinethylsily]]oxy]nethyl]-3-hexene-1,5-diynyl]phenyl]ethynyl]-2,7,3,3,10,10,11,11-octamethyl-7-[(trimethylsily]lethynyl]-, (6E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A

RN 554459-64-2 CAPLUS

CM 4, 9-Dioxa-3, 10-disiladodec-6-ene, 6-[[4-[(3E)-6-[4-[(3E)-3,4-bis][[(1,1-dinethylethyl)dinethylsity]] oxylnethyl-6-(4-iodoparyl)-3-hexene-1, 5-diyxyl]phenyl]-5, 4-bis [[[(1,1-dinethylethyl)dinethylsity]] oxylnethyl]-3-hexene-1, 5-diyxyl]phenyl]ethyxyl]-7-[4-[(3E)-3,4-bis][[(1,1-dinethylsity]] oxylnethyl]-6-(trinethylsityl)-3-hexene-1, 5-diyxyl]phenyl]ethyxyl]-2, 2, 3, 3, 10, 10, 11, 11-octanethyl-, (6E)- (9CI) (CA IDDEX MME)

PAGE 1-B PAGE 1-B

IT \$54453-71-109, Merrifield resin-supported 554459-73-109, Merrifield resin-supported 554459-73-109 , Merrifield resin-supported

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and Sonogashira and Cadiot-Chodkiewicz-type Pd-catalyzed cross-coupling reactions of supported poly(triacetylene)-derived oligomers)

- RN 554459-71-1 CAPLUS
- CN Ethanol, 2-[3-[4-[(3E)-6-[4-[(3E)-3,4-bis][[(1,1dimethylethyl)dimethylsilyllowy]methyl]-6-[trimethylsilyl]-3-hexene-1,5diyn-1-yl]phenyl]-3,4-bis[[[(1,1-dimethylethyl]dimethylsilyl]lowy]methyl]-3hexene-1,5-diyn-1-yl]phenyl]-1-ethyl-2-triazen-1-yl] (CA INGEX MAME)

Double bond geometry as described by E or Z.

- RN 554459-72-2 CAPLUS
- CN Ethanol, 2-[3-[4-[(3E)-6-[4-[(3E)-6-[4-[(3E)-3,4-bis[[[1,1-disethylethyl]disethyl=1]]]]] Pure hyllocological disethylethyl]disethyl=10 pure hyllocological disethylethyl]disethyl=10 pure hyllocological hexase-1,5-diyn-1-yl]phayl]-3,-bis[[[1,1]-disethyl=1]]]] Pure hyllocological disethyl=10 pure hyllocological disethyl=1]] Pu

Double bond geometry as described by E or Z.

PAGE 1-B PAGE 1-B

RN 554459-73-3 CAPLUS

dimethylethyl)dimethylsilyl]oxy]methyl]-6-(trimethylsilyl)-3-hexene-1,5diyn-1-yl]phenyl]-3,4-bis[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]-3hexene-1,5-diyn-1-yl]phenyl]-3,4-bis[[[(1,1dimethylethyl)dimethylsilyl]oxy]methyl]-3-hexene-1,5-diyn-1-yl]phenyl]-3,4bis[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]-3-hexene-1,5-diyn-1yl]phenyl]-1-ethyl-2-triazen-1-yl]- (CA INDEX NAME)

Double bond geometry as described by ${\mathbb E}$ or ${\mathbb Z}.$

PAGE 1-C

OS.CITING REF COUNT: THERE ARE 18 CAPLUS RECORDS THAT CITE THIS

RECORD (18 CITINGS)

REFERENCE COUNT: THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS

RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 17 OF 39 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2002:874017 CAPLUS Full-text

DOCUMENT NUMBER: 138:72938

TITLE: Diatropicity of

3,4,7,8,9,10,13,14-Octadehydro[14]annulenes: A Combined Experimental and Theoretical Investigation

AUTHOR(S): Boydston, Andrew J.; Haley, Michael M.; Williams, Richard Vaughan; Armantrout, John R.

CORPORATE SOURCE:

Department of Chemistry, University of Oregon, Eugene,

OR, 97403-1253, USA

SOURCE: Journal of Organic Chemistry (2002), 67(25), 8812-8819

CODEN: JOCEAH; ISSN: 0022-3263 PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE · English

OTHER SOURCE(S): CASREACT 138:72938

AB The synthesis and study of a series of octadehydro[14]annulenes is described. The aromaticity of these annulenes was investigated through examination of exptl. data from arene-fused systems as well as calculated nucleus-independent chemical shifts (NICS) and bond lengths. Benzene ring fusion to the parent system results in a stepwise loss in aromaticity as the number of fused rings is increased from one to two to three. This decrease in annulenic ring current is manifested in the alkene proton chemical shifts (0-2 benzenes) as well as the NICS (0-3 benzenes). Comparison of isomeric thiophene-fused

annulence shows further evidence of ring current competition as these allow for observation of intermittent degrees of delocalization throughout the annulenic core. A consistent relationship between the magnitude of the NICS values and the degree of benzamelation is also observed

IT 492294-13-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(cross-coupling, a combined exptl. and theor. investigation of diatropicity of 3,4,7,8,9,10,13,14-octadehydro[14]annulenes)

RN 482294-19-9 CAPLUS

CN Benzene, 1-(3Z)-3-hexene-1,5-diyn-1-yl-2-[2-[tris(1-methylethyl)silyl]ethynyl]- (CA INDEX MAME)

Double bond geometry as shown.

IT 483234-13-3P 482294-20-2P 482294-21-3P

480094-23-

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(cyclization; a combined exptl. and theor. investigation of diatropicity of 3,4,7,8,9,10,13,14-octadehydro[14]annulenes)

RN 482294-17-7 CAPLUS

CN Benzene, 1,2-di(3Z)-3-hexene-1,5-diyn-1-yl- (CA INDEX NAME)

Double bond geometry as shown.

RN 482294-20-2 CAPLUS

CN Benzene, 1-(32,72)-3,7-decadiene-1,5,9-triyn-1-yl-2-ethynyl- (CA INDEX

Double bond geometry as shown.

RN 482294-21-3 CAPLUS

CN Benzene, 1-ethynyl-2-[[2-(3Z)-3-hexene-1,5-diynylphenyl]ethynyl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

RN 482294-22-4 CAPLUS

CN Thiophene, 3,4-di(3Z)-3-hexene-1,5-divn-1-vl- (CA INDEX NAME)

Double bond geometry as shown.

IT 482234-15-5P

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(deprotection/cyclization; a combined exptl. and theor. investigation of diatropicity of 3,4,7,8,9,10,13,14-octadehydro[14]annulenes)

RN 482294-15-5 CAPLUS

CN Thiophene, 2,3-bis[(3%)-6-(trimethylsilyl)-3-hexene-1,5-diyn-1-yl]- (CA INDEX NAME)

Double bond geometry as shown.



IT 381173-15-50 381173-16-10 482294-13-3P

482294-14-48

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(deprotection; a combined exptl. and theor. investigation of diatropicity of 3,4,7,8,9,10,13,14-octadehydro[14]annulenes)

RN 381173-15-5 CAPLUS

CN Benzene, 1-[(3Z,7Z)-10-(trimethylsilyl)-3,7-decadiene-1,5,9-triyn-1-yl]-2-[2-[tris(1-methylethyl)silyl]ethynyl]- (CA INDEX NAME)



RN 381173-20-2 CAPLUS

CN Silane, [[2-[[32]-6-[dimethyl(1,1,2-trimethylpropyl)sliyl]-3-hexene-1,5-diynyl]phenyl]ethynyl]phenyl]ethynyl]tris(1-methylethyl)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

RN 482294-13-3 CAPLUS

CN Silane, [1,2-phenylenedi-(3%)-3-hexene-1,5-diyne-6,1-diyl]bis[trimethyl-(9CI) (CA INDEX NAME)

Double bond geometry as shown.

RN 482294-14-4 CAPLUS

CN Thiophene, 3,4-bis[(32)-6-[tris(1-methylethyl)silyl]-3-hexene-1,5-diyn-1-yl]- (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A

-Si(Pr-i)3

IT 383173-13-39

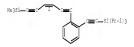
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(deprotection; a combined exptl. and theor. investigation of diatropicity of 3,4,7,8,9,10,13,14-octadehydro[14]annulenes)

RN 381173-13-3 CAPLUS

CN Benzene, 1-[(32)-6-(trimethylsilyl)-3-hexene-1,5-diyn-1-yl]-2-[2-[tris(1-methylethyl)silyl]ethynyl]- (CA INDEX NAME)

Double bond geometry as shown.



OS.CITING REF COUNT: 31

31 THERE ARE 31 CAPLUS RECORDS THAT CITE THIS

RECORD (33 CITINGS)

REFERENCE COUNT: 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 18 OF 39 CAPLUS COFYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2002:874016 CAPLUS Full-text

DOCUMENT NUMBER: 138:72902

TITLE: Dimethyldihydropyrene-Dehydrobenzoannulene Hybrids:

Studies in Aromaticity and Photoisomerization
AUTHOR(S): Kimball, David B.; Haley, Michael M.; Mitchell,

Reginald H.; Ward, Timothy R.; Bandyopadhyay,

Subhajit; Williams, Richard Vaughan; Armantrout, John

R.

CORPORATE SOURCE: Department of Chemistry and the Materials Science

Institute, University of Oregon, Eugene, OR,

97403-1253, USA

SOURCE: Journal of Organic Chemistry (2002), 67(25), 8798-8811

CODEN: JOCEAH; ISSN: 0022-3263 American Chemical Society

PUBLISHER: American Chemical DOCUMENT TYPE: Journal

LANGUAGE: English
OTHER SOURCE(S): CASREACT 138:72902

AB The synthesis and study of dehydrobenzoannulene (CBA)-dimethyldihydropyrene (CDP) hybrids as models for the investigation of aromaticity in weakly diatropic systems is reported. Three new monofused DBA-DD hybrids have been synthesized, and their IMM spectra are discussed with regard to quantifying the aromaticity remaining in multibenzene-fused DBAs. Nucleus-independent chemical shifts, determined at a series of locations for each compound, bord lengths, and IM and 130 NMR chemical shifts were calculated and used to probe

the aromaticity of these hybrids. Systems where more than one annulene/DBA is fused to the DDP core have also been obtained, and their potential use in photoinduced isomerization applications is discussed.

IT 481713-23-98

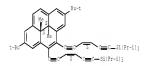
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(desilylation/cyclization; studies in aromaticity and photoisomerization of dimethyldihydropyrene-dehydrobenzoannulene hybrids)

RN 481713-23-9 CAPLUS

CN Pyrene, 2,7-bis(1,1-dimethylethyl)-10b,10c-dihydro-10b,10c-dimethyl-4,5-bis[(32)-6-[tris(1-methylethyl)silyl]-3-hexene-1,5-diyn-1-yl]-, (100R.10cR)-rel- (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



OS.CITING REF COUNT: 21 THERE ARE 21 CAPLUS RECORDS THAT CITE THIS

RECORD (21 CITINGS)

REFERENCE COUNT: 78 THERE ARE 78 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 19 OF 39 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2002:719354 CAPLUS Full-text

DOCUMENT NUMBER: 138:25161

TITLE: Third-order nonlinear optical properties of in-backbone substituted conjugated polymers

AUTHOR(S): Gubler, U.; Concilio, S.; Bosshard, Ch.; Biaggio, I.; Gunter, P.; Martin, R. E.; Edelmann, M. J.; Wytko, J.

A.; Diederich, F.

CORPORATE SOURCE: Institute of Quantum Electronics, ETH-Honggerberg,

Zurich, CH-8093, Switz. Applied Physics Letters (2002), 81(13), 2322-2324

CODEN: APPLAB: ISSN: 0003-6951

PUBLISHER: American Institute of Physics

DOCUMENT TYPE: Journal

SOURCE:

LANGUAGE: English

AB An alternative approach for tuning of the third-order nonlinear optical properties of organic mols. is based on insertion a functional group into the path of the relectron conjugation instead of at chain ends. This scheme enhances the second-order hyperpolarizability for short mols., but in two instances where such mols. were polymerized into longer mols. the overall hyperpolarizability was lower. The study is based on tertbrity/dimethy/silony-vinyl-poly(triacetylene) as the basic linear conjugated polymer, with spacer of anthracene, benzene, naphthalene, thiophene, tetranethylbenzene, furan tetrafluorobenzenee, pyridine, biphenyl, pyrazine, and bis(triethylphosphine-PC).

II 249616-79-3 249616-82-8,

(role of in-backbone spacer on third-order nonlinear optical properties of polyacetylene conjugated polymers)

RN 249616-79-3 CAPLUS

CN 4,9-Dioxa-3,10-disiladodec-6-ene, 6,6'-(1,4-phenylenedi-2,1-ethynediyl)bis[2,2,3,3,10,10,11,11-octamethyl-7-[(trimethylsilyl)ethynyl]-, (6E,6'E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

RN 249616-82-8 CAPLUS

CN 4,9-Dioxa-3,10-disiladodec-6-ene, 6,6'-(2,6-maphthalenediyldi-2,1ethynediyl)bis[2,2,3,3,10,10,11,11-octamethyl-7-[(trimethylsilyl)ethynyl]-, (6E,6'E)- (9CI) (CA INDEX NAME)

PAGE 1-B

__SiMe3

- RN 249616-83-9 CAPLUS
- CN 4,9-Dioxa-3,10-disiladodec-6-ene, 6,6'-(9,10-anthracenediyldi-2,1-ethynediyl)bis[2,2,3,3,10,10,11,11-octamethyl-7-[(trimethylsilyl)ethynyl]-, (6E,6'E)-(9CI) (CA INDEX NAME)

Double bond geometry as shown.

- RN 249616-84-0 CAPLUS
- CN 4,9-Dioxa-3,10-disiladodec-6-ene, 6,6'-[(2,3,5,6-tetrafluoro-1,4-phenylene)di-2,1-ethynediyl]bis[2,2,3,3,10,10,11,11-octamethyl-7-[(trimethylsilyl)ethynyl]-, (6E,6'E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

- RN 249616-87-3 CAPLUS
- CN 4,9-Dioxa-3,10-disiladodec-6-ene, 6,6'-[(2,3,5,6-tetramethyl-1,4-phenylene)di-2,1-ethynediyl]bis[2,2,3,3,10,10,11,11-octamethyl-7-[(trimethylsilyl)ethynyl]-, (6E,6'E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

- RN 249616-88-4 CAPLUS
- CN Pyridine, 2,5-bis[(3E)-3,4-bis[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]-6-(trimethylsilyl)-3-hexene-1,5-diya-1-yl]- (CA INDEX NAME)

- RN 249616-89-5 CAPLUS
- CN Pyrazine, 2,6-bis[(3E)-3,4-bis[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]-6-(trimethylsilyl)-3-hexene-1,5-diyn-1-yl]- (CA INDEX NAME)

Double bond geometry as shown.

- RN 249616-90-8 CAPLUS
- CN 4,9-Dioxa-3,10-disiladodec-6-ene, 6,6'-(2,5-thiophenediyldi-2,1ethynediyl)bis[2,2,3,3,10,10,11,11-octamethyl-7-[(trimethylsilyl)ethynyl]-, (6E,6'E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

- RN 249616-91-9 CAPLUS
- CN 4,9-Dioxa-3,10-disiladodec-6-ene, 6,6'-(2,5-furandiyldi-2,1-ethynediyl)bis[2,2,3,3,10,10,11,11-octamethyl-7-[(trimethylsilyl)ethynyl]-, (6E,6'E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

OS.CITING REF COUNT: 15 THERE ARE 15 CAPLUS RECORDS THAT CITE THIS

RECORD (15 CITINGS)

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS

RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

18 ANSWER 20 OF 39 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2002:700080 CAPLUS Full-text

DOCUMENT NUMBER: 138:247934

TITLE: Cytotoxicities and topoisomerase I inhibitory

activities of 2-[2-(2-

alkynylphenyl)ethynyl]benzonitriles, 1-aryldec-3-ene-1,5-diynes, and related

bis(enediynyl)arene compounds

AUTHOR(S): Lin, Chi-Fong; Lu, Wen-Der; Hsieh, Pei-Chen; Kuo,

Yao-Haur; Chiu, Huey-Fen; Wang, Chyi-Jia; Wu,

Ming-Jung

CORPORATE SOURCE: School of Chemistry, Kaohsiung Medical University,

Kaohsiung, Taiwan

SOURCE: Helvetica Chimica Acta (2002), 85(8), 2564-2575

CODEN: HCACAV; ISSN: 0018-019X

PUBLISHER: Verlag Helvetica Chimica Acta

DOCUMENT TYPE: Journal LANGUAGE: English OTHER SOURCE(S): CASREACT 138:247934

- AB The activities of a series of acyclic enedignes, 2-(6-substituted hex-3-ene-1.5-divnvl)benzonitriles (1-5) and their derivs, 7-23 were evaluated against several solid tumor cell lines and topoisomerase I. Compds. 1-5 show selective cytotoxicity with Hepa cells, and 2-[6-phenylhex-3-ene-1,5-diynyl]benzonitrile (5) reveals the most-potent activity. Analogs 8-10 and 13-22 also have the same effect with DLD cells; 1-[(Z)-dec-3-ene-1,5-diynyl]-4-nitrobenzene (21) shows the highest activity among them. Moreover, 1-[(Z)-dec-3-ene-1,5diynyl]-2- (trifluoromethyl)benzene (20) exhibits the strongest inhibitory activity with the Hela cell line. Derivs. 9, 10, 18, and 23 display inhibitory activities with topoisomerase I at 87 µM. The cell-cycle anal. of compound 5, which induces a significant blockage in S phase, indicates that these novel enedignes probably undergo other biol. pathways leading to the cytotoxicity, except the inhibitory activity toward topoisomerase I. IT 457934-65-79
 - RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

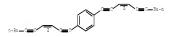
(cytotoxicity and topoisomerase I inhibitory activity of 2-[2-(2-alkynylphenyl)ethynyl]benzonitriles,

1-aryldec-3-ene-1,5-diynes, and related bis(enediynyl)arene compds.)

RN 457914-65-7 CAPLUS

CN Benzene, 1,4-di(3Z)-3-decene-1,5-diyn-1-yl- (CA INDEX NAME)

Double bond geometry as shown.



OS.CITING REF COUNT: THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD

(3 CITINGS)

REFERENCE COUNT: THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 21 OF 39 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2002:628032 CAPLUS Full-text

DOCUMENT NUMBER: 138:4578

TITLE: Dramatically enhanced fluorescence of heteroaromatic

chromophores upon insertion as spacers into

oligo(triacetylene)s

Edelmann, Michael J.; Raimundo, Jean-Manuel; Utesch, AUTHORIS):

Nils F.; Diederich, Francois

CORPORATE SOURCE: Lab. Organische Chemie, ETH-Hoenggerberg, HCI, Zurich,

CH-8093, Switz.

SOURCE: Helvetica Chimica Acta (2002), 85(7), 2195-2213

CODEN: HCACAV: ISSN: 0018-019X

Verlag Helvetica Chimica Acta PUBLISHER:

Journal DOCUMENT TYPE: LANGUAGE: English CASREACT 138:4578 OTHER SOURCE(S):

0-Si(t-Bu)Me2 __Si(t-Bu)Me2 Meg (t-Bu) Si-

AB In continuation of a previous study on the modulation of π -electron conjugation of oligo(triacetylene)s by insertion of central hetero-spacer fragments between two (E)-hex-3-ene-1,5-diyne ((E)-1,2-diethynylethene, DEE) moieties, trimeric hybrid oligomers (I; A = spacer, R = SiEt3, SiMe3) were prepared Spacers used were both electron-deficient (quinoxaline-based heterocycles, pyridazine) and electron-rich (2,2'-bithiophene, 9,9-dioctyl-9Hfluorene)chromophores. With a dipyridophenazine spacer, transition metal complexes were synthesized as potential precursors for nanoscale scaffolding based on both covalent acetylenic coupling and supramol, assembly. The UV/visible spectra revealed that the majority of spacers provided heterotrimers featuring extended π -electron delocalization. The new hybrid chromophores show a dramatically enhanced fluorescence compared with the DEE dimer and homo-trimer. This increase in emission intensity appears as a general feature of these systems: even if the spacer mol, is nonfluorescent, the corresponding hetero-trimer may show a strong emission. The redox properties of the new hybrid chromophores were determined by cyclic voltammetry (CV) and rotating disk voltammetry (RDV). In each case, the first 1-electron reduction step in the hetero-trimers appeared anodically shifted compared with DEE dimer and homo-trimer. With larger spacer chromophore extending into two dimensions, the anodic shift (by 240-490 mV) seems to originate from inductive effects of the two strongly electron-accepting DEE substituents rather than from extended π -electron conjugation along the oligomeric backbone, as had previously been observed for DEE substituted porphyrins.

II 477290-9u-49 477293-99-50 477294-00-10 477254-71-2P 477234-02-3P 477294-04-58 477294-06-7P 471234-08-9P 477294-09-5E 477234-11-42

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)

(preparation, electrochem. properties and dramatically enhanced

of compds. consisting of heteroarom. chromophores inserted as spacers into oligo(triacetvlene)s)

RN 477293-98-4 CAPLUS

CN 2,1,3-Benzothiadiazole, 4,7-bis((3E)-3,4-bis(((1,1-

dimethylethyl)dimethylsilyl]cxy]methyl]-6-(triethylsilyl)-3-hexene-1,5-

diyn-1-y1]- (CA INDEX NAME)

- RN 477293-99-5 CAPLUS
- CN Quinoxaline, 5,8-bis[(3E)-3,4-bis[([(1,1dimethylethyl)dimethylsilyl]oxy]methyl]-6-(triethylsilyl)-3-hexene-1,5diyayl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

- RN 477294-00-1 CAPLUS
- CN Quinoxaline, 5,8-bis[(3E)-3,4-bis[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]-6-(triethylsilyl)-3-hexene-1,5-diyn-1-yl]-2,3-diphenyl- (CA INDEX NAME)

Double bond geometry as shown.

- RN 477294-01-2 CAPLUS
- CN Dibenzo[a,c]phenazine, 10,13-bis[(3E)-3,4-bis[[[(1,1 dimethylethyl)dimethylsilyl]oxy]methyl]-6-(triethylsilyl)-3-hexene-1,5 diyn-1-yl]- (CA INDEX NAME)

PAGE 1-A

- RN 477294-02-3 CAPLUS
- CN Dipyrido[3,2-a:2',3'-c]phenazine, 10,13-bis[(3E)-3,4-bis[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]-6-(triethylsilyl)-3-hexene-1,5diynyl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A

PAGE 2-A

- RW 477234-04-5 CAPJUS
 CN Zinc(2+), bis[10,13-bis[(3E)-3,4-bis[[[(1,1-dimethylsily1]oxy]methyl]-6-(triethylsily1)-3-hexene-1,5diynyl]dipyrido[3,2-a:2',3'-c]phenazine- κ N4, κ N5]-, (T-4)-, salt with trifluoromethanesulfonic acid (1:2) [9CI] (CA INDEX NAME)
 - CM 1
 - CRN 477294-03-4
 - CMF C140 H212 N8 O8 Si12 Zn
 - CCI CCS

PAGE 1-A



PAGE 1-C

PAGE 2-A

CM 2

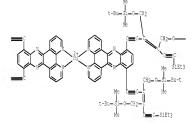
CRN 37181-39-8 CMF C F3 03 S

- RN 477294-06-7 CAPLUS
 CN Mickel(2+), bis[10,13-bis[(3E)-3,4-bis[[[(1,1-dimethylethyl)dimethylethyl)-6-(triethylsily))-3-hexene-1,5-diyay]digy;dio[(3,2-a:2,3'a-c)phenarine-NH,KNS]-, (T-4)-, diperchlorate (9Cl) (CA INDEX NAME)
 - CM 1
 - CRN 477294-05-6
 - CMF C140 H212 N8 Ni O8 Si12
 - CCI CCS

PAGE 1-A



PAGE 1-B



CM 2

CRN 14797-73-0 CMF C1 04



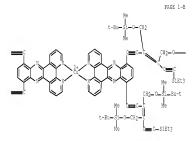
RN 477294-08-9 CAPLUS

CN Copper(2+), bis[10,13-bis[(3E)-3,4-bis[([(1,1-dimethylethyl)dimethylsilyl)oxy]methyl]-6-(triethylsilyl)-3-hexene-1,5-
$$\label{eq:continuous} \begin{split} & \text{diynyl}] \\ & \text{dipyrido} [3,2-\text{a:}2',3'-\text{c}] \\ & \text{phenazine-kN4,kN5}]-, \\ & \text{the safluorophosphate} (1-)] \\ & \text{(9CI)} \\ & \text{(CA INDEX NAME)} \end{split}$$

CM 1

CRN 477294-07-8

CMF C140 H212 Cu NB O8 Si12 CCI CCS



PAGE 1-C

CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



RN 477294-09-0 CAPLUS

CN Pyridazine, 3,6-bis[(3E)-3,4-bis][[(1,1dimethylethyl)dimethylsilyl]oxy]methyl]-6-(trimethylsilyl)-3-hexene-1,5diyn-1-yl)- (CA INDEX NAME)

Double bond geometry as shown.

RN 477294-11-4 CAPLUS

CN 4,9-Dioxa-3,10-disiladodec-6-ene, 6,6'-[(9,9-dioctyl-9H-fluorene-2,7-diyl)di-2,1-ethynediyl)bis[2,2,3,3,10,10,11,11-octamethyl-7[(trimethylsilyl)ethynyl]-, (6E,6'E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-B

OS.CITING REF COUNT:

42 THERE ARE 42 CAPLUS RECORDS THAT CITE THIS

RECORD (44 CITINGS)

REFERENCE COUNT: 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 22 OF 39 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2002:539072 CAPLUS Full-text DOCUMENT NUMBER: 137:232177

TITLE: Anionic Cycloaromatization of

1-Aryl-3-hexen-1,5-dignes Initiated by Methoxide Addition: Synthesis of Phenanthridinones,

Benzo[c]phenanthridinones, and Biaryls
AUTHOR(S): Wu, Ming-Jung, Lin, Chi-Fong, Lu, Wen-Der

CORPORATE SOURCE: School of Chemistry, Kaohsiung Medical University,

Kaohsiung, Taiwan

SOURCE: Journal of Organic Chemistry (2002), 67(17), 5907-5912

CODEN: JOCEAH; ISSN: 0022-3263
PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 137:232177

AB Treatment of 2-((2)-6-substituted-3-hexene-1,5-diynyl)benzonitriles with sodium methoxide in refluxing methanol in the presence of a polar aprotic solvent, such as DMSO, HMPA, THF, or 18-crown-6, gave phenanthridinones in 21-

17% yields. In these cases, addition of 10% DMSO into the reaction mixture gave the highest yield. On the other hand, methanolysis of 2-(2-(2-) alkynylphenyl)ethynyl)benonitriles under the same reaction conditions gave benzo[c]chenanthridinones in 31-57% yields. Methanolysis of [2]-l-aryl-3-hexen-1].5-diynes in the presence of 2 equiv of tetrabrylamnonium iodide gave blaryls in 14-66% yields. It is found that the reactions with aryl groups bearing electron-withdrawing groups proceeded at greater rates and gave better yields.

IT 457914-65-7P

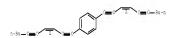
RL: RCT (Reactant); SPN (Synthetic preparation); FREP (Preparation); RACT (Reactant or reagent)

(anionic cycloaromatization of 1-aryl-3-hexen-1,5-diynes initiated by addition of methanol)

RN 457914-65-7 CAPLUS

CN Benzene, 1,4-di(3Z)-3-decene-1,5-divn-1-vl- (CA INDEX NAME)

Double bond geometry as shown.



OS.CITING REF COUNT: 13 THERE ARE 13 CAPLUS RECORDS THAT CITE THIS

RECORD (13 CITINGS)
REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FO

15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 23 OF 39 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2002:471478 CAPLUS Full-text

DOCUMENT NUMBER: 137:310580

TITLE: Evaluation of ring-strain effects in cycloalkene-fused

octadehydro[14]annulenes

AUTHOR(S): Boydston, A. J.; Laskoski, Matthew; Bunz, Uwe H. F.;

Haley, Michael M.

CORPORATE SOURCE: Department of Chemistry, University of Oregon, Eugene,

OR, 97403-1253, USA Synlett (2002), (6), 981-983

SOURCE: Synlett (2002), (6), 981-983 CODEN: SYNLES; ISSN: 0936-5214

PUBLISHER: Georg Thieme Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 137:310580

AB The possibility of ring strain as the cause of bond localization in metalloarene-fused octadehydro[14] annulenes is addressed. It was found that strain-induced bond localization is not observable in the mildly aromatic annulenes previously used to compare the degree of delocalization in CpD(cyclobutadiene) relative to ferrocene and bearene.

IT 470858-28-3P 472956-28-89

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(deprotection/cyclization; evaluation of ring-strain effects in cycloalkene-fused octadehydro[14]annulenes)

RN 472956-26-6 CAPLUS

CN Cyclobutene, 1,2-bis[(3Z)-6-(trimethylsilyl)-3-hexene-1,5-diyn-1-yl]- (CA INDEX NAME)

Double bond geometry as shown.

RN 472956-28-8 CAPLUS

CN Cyclopentene, 1,2-bis[(3%)-6-(trimethylsilyl)-3-hexene-1,5-diyn-1-yl]-(CA INDEX NAME)

Double bond geometry as shown.



OS.CITING REF COUNT: 6 THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD

(6 CITINGS)

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

RECORD. HER CHINITONS AVAILABLE IN THE RE-TO

L8 ANSWER 24 OF 39 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2001:731976 CAPLUS Full-text

DOCUMENT NUMBER: 136:53492

TLE: Diatropicity of Dehydrobenzo[14]annulenes: Comparative

Analysis of the Bond-Fixing Ability of Benzene on the Parent 3,4,7,8,9,10,13,14-Octadehydro[14]annulene

AUTHOR(S): Boydston, A. J.; Haley, Michael M.

CORPORATE SOURCE: Department of Chemistry, University of Oregon, Eugene,

OR, 97403-1253, USA

SOURCE: Organic Letters (2001), 3(22), 3599-3601

CODEN: ORLEF7; ISSN: 1523-7060

PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal

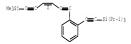
LANGUAGE: English

OTHER SOURCE(S): CASREACT 136:53492

- AB We report the synthesis of 3,4,7,8,9,10,13,14-octadehydro[14] annulene and detail a comparative aromaticity study with its benzamelated derivs. (e.g., benzo[e]-3,4,7,8,9,10,13,14-octadehydro[14] annulene and dibenzo[a,e]-3,4,7,8,9,10,13,14-octadehydro[14] annulene].
- II 183173-13-19 381173-15-19 381173-20-20
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (intermediate; diatropicity of dehydrobenzoannulenes)

RN 381173-13-3 CAPLUS

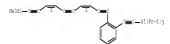
CN Benzene, 1-[(32)-6-(trimethylsily1)-3-hexene-1,5-diyn-1-y1]-2-[2-[tris(1-methylethyl)sily1]ethynyl]- (CA INDEX NAME)



RN 381173-15-5 CAPLUS

CN Benzene, 1-[(32,72)-10-(trimethylsilyl)-3,7-decadiene-1,5,9-triyn-1-yl]-2-[2-[tris(1-methylethyl)silyl]ethynyl]- (CA INDEX NAME)

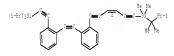
Double bond geometry as shown.



RN 381173-20-2 CAPLUS

CN Silane, [[2-[[2-[(3Z)-6-[dimethyl(1,1,2-trimethylpropyl)silyl]-3-hexene-1,5-diynyl]phenyl]ethynyl]phenyl]ethynyl]tris(1-methylethyl)- (9CI) (CA INCEX NAME)

Double bond geometry as shown.



OS.CITING REF COUNT: 19 THERE ARE 19 CAPLUS RECORDS THAT CITE THIS

RECORD (19 CITINGS)

THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT:

RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 25 OF 39 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2001:714296 CAPLUS Full-text

DOCUMENT NUMBER: 136+69640

TITLE: Synthesis and spectroscopic studies of expanded planar

dehydrotribenzo[n]annulenes containing one or two

isolated alkene units

AUTHOR(S): Wan, W. Brad; Chiechi, Ryan C.; Weakley, Timothy J.

R.; Haley, Michael M.

CORPORATE SOURCE: Department of Chemistry and the Materials Science

Institute, University of Oregon, Eugene, OR,

97403-1253, USA

SOURCE: European Journal of Organic Chemistry (2001), (18),

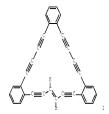
3485-3490

CODEN: EJOCFK; ISSN: 1434-193X

PUBLISHER: Wiley-VCH Verlag GmbH

DOCUMENT TYPE: Journal LANCHACE . English

OTHER SOURCE(S): CASREACT 136:69640



- AB Dehydrobenzoannulene derivs. containing isolated alkene linkages, e.g., I, were synthesized by combining an in situ Pd/Cu-mediated cross-coupling with an intramol. cyclization strategy. 1H NMR studies of these macrocycles and comparison with related systems verify that highly alkynylated dehydrobenzoannulenes possess weak induced ring currents, indicative of aromatic (4n+2 π systems) and antiarom. (4n π systems) behavior, in spite of their large size and extensive benzannulation.
- IT 234626-16-7F 214628-17-8P 214628-18-9P 383454-39-4P

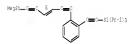
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and spectroscopic studies of expanded planar dehydrotribenzo[n]annulenes containing one or two isolated alkene units)

RN 214628-16-7 CAPLUS

CN Benzene, 1-[(3E)-6-(trimethylsilyl)-3-hexene-1,5-diyn-1-yl]-2-[2-[tris(1methylethyl)silyl]ethynyl]- (CA INDEX NAME)

Double bond geometry as shown.



RN 214628-17-8 CAPLUS

CN Silane, tris(1-methylethyl)[[2-[(3E)-6-[2-[4-[2-[[tris(1methylethyl)silyl]ethynyl]phenyl]-1,3-butadiynyl]phenyl]-3-hexene-1,5diynyl]phenyl]ethynyl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-B

- RN 214628-18-9 CAPLUS
- CN Silane, tris(1-methylethyl)[[2-[6-[2-[(3E)-6-[2-[[tris(1methylethyl)silyl]ethynyl]phenyl]-3-hexene-1,5-diynyl]phenyl]-1,3,5hexatriynyl]phenyl]ethynyl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-B

- RN 383404-38-4 CAPLUS
- CN Silane, [1,2-phenylenebis[(3E)-3-hexene-1,5-diyne-6,1-diyl-2,1-phenylene-2,1-ethynediyl)]bis[tris(1-methylethyl)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-B

10 THERE ARE 10 CAPLUS RECORDS THAT CITE THIS OS.CITING REF COUNT:

RECORD (10 CITINGS)

REFERENCE COUNT: THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

18 ANSWER 26 OF 39 CAPLUS COPYRIGHT 2009 ACS on STN 2001:664308 CAPLUS Full-text ACCESSION NUMBER:

DOCUMENT NUMBER: 136:5789

[2.2]Paracyclophane/dehydrobenzoannulene hybrids: TITLE:

Transannular delocalization in open-circuited conjugated macrocycles

AUTHOR(S): Boydston, A. J.; Bondarenko, Lidija; Dix, Ina;

Weakley, Timothy J. R.; Hopf, Henning; Haley, Michael

Institut fur Organische Chemie, Technische Universitat

Braunschweig, Braunschweig, 38106, Germany SOURCE:

Angewandte Chemie, International Edition (2001),

40(16), 2986-2989

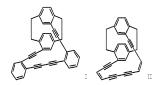
CODEN: ACIEF5; ISSN: 1433-7851

PUBLISHER: Wiley-VCH Verlag GmbH

Journal DOCUMENT TYPE: LANGUAGE: English

CORPORATE SOURCE:

OTHER SOURCE(S): CASREACT 136:5789



AB Formylation and following alkymylation of dibromoparacyclophane gave dialymylparacyclophane as key for the synthesis of [2.2]paracyclophane devicebenoannulaem hybrids I and II. I and II were assembled by Pd-ostalyzed cross-coupling of iodoarene and chloroalkene with dialymylparacyclophane and subsequent cyclization. The study of the transamular delocalization in open-circuited conjugated macrocycles using optical properties and the elucidation of solid-stated structure of II by x-ray crystallog. [monoclinic, P2I/n, a 9.505(2), b 15.077(2), c 13.687(2)\$, β 98.686(8), V 1933.3(6) \$7, 2 4] are reported.

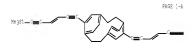
IT 375366-59-9P

RL: PRP [Properties]; RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and transannular delocalization of open-circuited conjugated paracyclophane/dehydrobenzoannulene macrocycles)

RN 375366-59-9 CAPLUS

CN Tricyclo[9.2.2.24,7]hexadeca-4,6,10,12,13,15-hexaene, 5,11-bis[6-(trimethylsilyl)-3-hexaene-1,5-diyn-1-yl]-, stereoisomer (CA INDEX NAME)



PAGE 1-B

■C—SiMe3

OS.CITING REF COUNT: 20 THERE ARE 20 CAPLUS RECORDS THAT CITE THIS RECORD (20 CITINGS)

REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS

RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 27 OF 39 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2001:481503 CAPLUS Full-text

DOCUMENT NUMBER: 135:211133

TITLE: Organometallic Dehydro[14]annulenes Containing

Vollhardt's Cyclobutadiene: Are CpCo-Complexed Cyclobutadienes More Aromatic than Benzene?

AUTHOR(S): Laskoski, Matthew; Smith, Mark D.; Morton, Jason G.

M.; Bunz, Uwe H. F.

CORPORATE SOURCE: Department of Chemistry and Biochemistry, The University of South Carolina, Columbia, SC, 29208, USA

Journal of Organic Chemistry (2001), 66(15), 5174-5181

CODEN: JOCEAH; ISSN: 0022-3263

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

SOURCE:

OTHER SOURCE(S): CASREACT 135:211133

AB Pd-catalyzed coupling of [1,2-diethynyl-3,4-

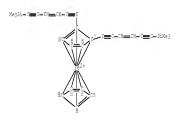
bis(trimethylsily)]cyclobutadiene][cyclopentadieny]]cobalt to a series of 1-iodo-2-(trimethylsily]lethynyl]benzenes and 1-chloro-4-trimethylsily]but-1-ene-3-yne is followed by desilylation with potassium carbonate. Ou(0A:)2-promoted oxidative ring closure leads to dehydro[14]annulenes and dehydro[14]benzoannulenes fused to a cyclobutadiene(cyclopentadienylcobalt)

uniyato (stylenozamizmene inset of sytroducatemencyclopencarementer) complex. Five of these fused dehydroannulense were structurally characterized. IH IMPR spectroscopy of the organometallic dehydro[14]annulenes incorporating the (bistrimethylsilyl) cyclobutadiene (cyclopentadienylcobalt) unit suggested that the aromaticity of the fused cyclobutadiene complex might be stronger than that of benzene according to the rino-current criterion.

IT 350586-85-5 350586-94-6 RL: PRP (Properties) (MMR and aromaticity of)

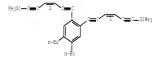
RN 350586-85-5 CAPLUS

CN Ferrocene, 1,2-bis[(3Z)-6-(trimethylsilyl)-3-hexene-1,5-diynyl]- (9CI) (CA INDEX NAME)



RN 350586-94-6 CAPLUS

CN Silane, [(4,5-dibutyl-1,2-phenylene)di-(32)-3-hexene-1,5-diyne-6,1-diyl]bis[trimethyl- (9CI) (CA INDEX NAME)

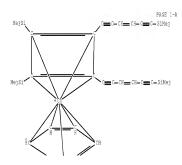


IT 358365-18-19

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation, desilylation, and sequential copper-catalyzed oxidative ring closure of)

- RN 358365-18-1 CAPLUS
- CN Cobalt, [[[(1,2,3,4-η)-3,4-bis(trimethylsilyl)-1,3-cyclobutadiene-1,2- $\texttt{diyl}] \texttt{di-} (3\mathbb{Z}) - 3 - \texttt{hexene-} 1, 5 - \texttt{diyne-} 6, 1 - \texttt{diyl}] \texttt{bis} [\texttt{trimethylsilane}]] (\eta 5 - 2, 4$ cyclopentadien-1-yl) - (9CI) (CA INDEX NAME)





OS.CITING REF COUNT:

27 THERE ARE 27 CAPLUS RECORDS THAT CITE THIS RECORD (28 CITINGS)

REFERENCE COUNT:

THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT 18 ANSWER 28 OF 39 CAPLUS COPYRIGHT 2009 ACS on STN 2001:318816 CAPLUS Full-text ACCESSION NUMBER:

DOCUMENT NUMBER: 135:92741

TITLE: Concave butterfly-shaped organometallic hydrocarbons? AUTHOR(S):

Laskoski, Matthew; Roidl, Gaby; Smith, Mark D.; Bunz,

Uwe H. F.

Department of Chemistry and Biochemistry, The CORPORATE SOURCE:

University of South Carolina, Columbia, SC, 29208, USA Angewandte Chemie, International Edition (2001), SOURCE:

40(8), 1460-1463

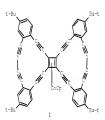
CODEN: ACIEF5; ISSN: 1433-7851

Wiley-VCH Verlag GmbH PUBLISHER:

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 135:92741

GI



AB The preparation of title novel large concave organometallic hydrocarbon with a central tetraethynylcyclobutadiene(cyclopentadienylcobalt) core, e.g. I, starting from tetraalkynylcyclobutadiene cobalt complex in five steps is described. The crystal structure of I was determined

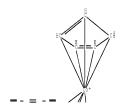
IT 349463-31-0P RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and cyclization of)

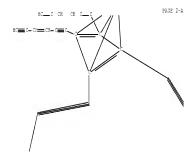
RN 349453-21-0 CAPLUS

CN Cobalt, (η5-2,4-cyclopentadien-1-yl)[(1,2,2a,18a-η)-3,4,9,10,11,12,17,18-octadehydro-7,14-bis(1,1-dimethylethyl)-1,2-di-(3Z)-3hexene-1,5-diynyldibenzo[a,i]cyclobuta[e]cyclotetradecene]- (9CI) (CA INDEX NAME)

PAGE 1-A PAGE 2-B





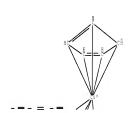




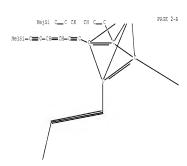


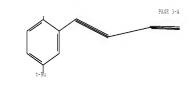
- II 343453-00-9P
 - RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 - (preparation and desilylation of)
- RN 349453-20-9 CAPLUS
- CN Cobalt, $(\eta 5-2, 4$ -cyclopentadien-1-y1)[[(1,2,2a,18a- η)-3,4,9,10,11,12,17,18-octadehydro-7,14-bis(1,1-dimethylethyl)dibenzo[a,1]cyclobuta[e]cyclotetradecene-1,2-diyl]di-(3 \mathbb{Z})-3-

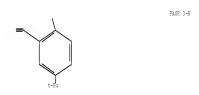
PAGE 1-A











OS.CITING REF COUNT:

21 THERE ARE 21 CAPLUS RECORDS THAT CITE THIS

RECORD (21 CITINGS)

REFERENCE COUNT: 31 THERE ARE

31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 29 OF 39 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2001:295307 CAPLUS Full-text

DOCUMENT NUMBER:

135:107433

TITLE: Is ferrocene more aromatic than benzene?

AUTHOR(S): Laskoski, Matthew: Steffen, Winfried: Smith, Mark D.:

Bunz, Uwe H. F.

CORPORATE SOURCE: Department of Chemistry and Biochemistry, The

University of South Carolina, Columbia, SC, 29208, USA SOTRCE: Chemical Communications (Cambridge, United Kingdom)

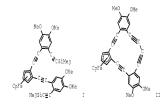
(2001), (8), 691-692

CODEN: CHCOFS: ISSN: 1359-7345

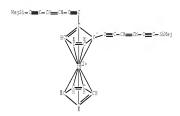
PUBLISHER: Royal Society of Chemistry

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 135:107433



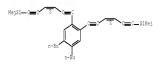
- AB A combination of Pd-catalyzed arene-alkynyl couplings and Cu(OAc)2-promoted internal alkyne dimerization furnishes novel ferrocene-based dehydroannulenes in high yield. Thus, palladium-copper catalyzed coupling of 1,2diethynylferrocene 1-I-2,3-(MeO)2C6H2C.tplbond.CSiMe3 gave 30% tetrayne I which on K2CO3/MeOH mediated desilylation followed by cyclization with Cu(OAc)2/MeCN gave 49% dehydroannulene II.
- IT 350586-85-5P 350586-94-69
 - RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
- (preparation, desilylation, and sequential copper catalyzed cyclization of)
- RN 350586-85-5 CAPLUS
- CN Ferrocene, 1,2-bis[(32)-6-(trimethylsily1)-3-hexene-1,5-diyny1]- (9CI) (CA INDEX NAME)



RN 350586-94-6 CAPLUS

CN Silane, [(4,5-dibutyl-1,2-phenylene)di-(32)-3-hexene-1,5-diyne-6,1diyl]bis[trimethyl- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



OS.CITING REF COUNT: 28 THERE ARE 28 CAPLUS RECORDS THAT CITE THIS

RECORD (28 CITINGS)

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

18 ANSWER 30 OF 39 CAPLUS COPYRIGHT 2009 ACS on STN 2000:832492 CAPLUS Full-text ACCESSION NUMBER:

DOCUMENT NUMBER: 134:310920

TITLE: Bis(enedigne) Macrocycles: Synthesis, Reactivity, and

Structural Analysis

AUTHOR(S): Blanchette, H. S.; Brand, S. C.; Naruse, H.; Weakley,

T. J. R.; Haley, M. M.

Department of Chemistry, University of Oregon, Eugene, CORPORATE SOURCE:

OR, 97403-1253, USA

SOURCE: Tetrahedron (2000), 56(49), 9581-9588

CODEN: TETRAB; ISSN: 0040-4020

Elsevier Science 1td. DIENT TORRE.

DOCUMENT TYPE: Journal

LANGUAGE: English OTHER SOURCE(S): CASREACT 134:310920

AB The authors describe the syntheses of five macrocycles possessing two enedigne warheads, along with the structural and thermal analyses of these bis(enediyne) compds. The solid-state packing of one of the compds. suggests the possibility for the mol. to undergo a topochem. diacetylene polymerization

IT 335378-20-69 335378-20-69

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(Reactant or reagent)

(preparation of bis(enediyne) macrocycles)

RN 335378-20-6 CAPLUS

CN Silane, [(32)-3-hexene-1,5-diyne-1,6-diylbis(2,1-phenylene-2,1-ethynediyl)]bis[tris(1-methylethyl)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

RN 335378-30-8 CAPLUS

CN Benzene, 1,1'-(3Z)-3-hexene-1,5-diyne-1,6-diylbis[2-ethynyl- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



OS.CITING REF COUNT: 19 THERE ARE 19 CAPLUS RECORDS THAT CITE THIS

RECORD (20 CITINGS)

REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 AMSWER 31 OF 39 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2000:767122 CAPLUS Pull-text

DOCUMENT NUMBER: 134:71381

TITLE: Synthesis and structure of a new [6.6]metacyclophane

with enediyne bridges

AUTHOR(S): Srinivasan, Manivannan; Sankararaman, Sethuraman; Dix,

Ina; Jones, Peter G.

CORPORATE SOURCE: Department of Chemistry, Indian Institute of

Technology, Madras, 600 036, India SOURCE: Organic Letters (2000), 2(24), 3849-3851

CODEN: ORLEF7; ISSN: 1523-7060

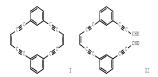
PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 134:71381

GI



- AB Synthesis and structure of a novel [6.6]metacyclophane with enedigne bridges I is reported. I was prepared by reacting [1,3-diethynylbenzene with EtdyBr/HF and DBF to give the monoaldehyde. The monoaldehyde was subsequently converted to the acetal, coupled with CLCH:CHCl to give bis-acetal, which was hydrolyzed to the dialdehyde II. II underwent Methury coupling using ficl3 and Zn-Cu couple in DBE to give I in 698 yield.
- II 32572A-9T-AP 315726-91-7P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 - (preparation and crystal structure of metacyclophane with enedigne bridges)
- RN 315716-90-6 CAPLUS
- CN 1,3-Dioxolane, 2,2'-[(32)-3-hexene-1,5-diyne-1,6-diylbis(3,1-phenylene-2,1-ethynediyl)]bis- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



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- RN 315716-91-7 CAPLUS
- CN 2-Propynal, 3,3'-[(3Z)-3-hexene-1,5-diyne-1,6-diyldi-3,1-phenylene]bis-(9CI) (CA INDEX NAME)



OS.CITING REF COUNT: 18 THERE ARE 18 CAPLUS RECORDS THAT CITE THIS

RECORD (18 CITINGS)

REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS
RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 32 OF 39 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1999:625317 CAPLUS Full-text

DOCUMENT NUMBER: 131:337377

TITLE: Modulation of π -electron conjugation in

oligo(triacetylene) chromophores by incorporation of a

central spacer

AUTHOR(S): Martin, Rainer E.; Wytko, Jennifer A.; Diederich, Francois; Boudon, Corinne; Gisselbrecht, Jean-Paul;

Gross, Maurice

CORPORATE SOURCE: Laboratorium fur Organische Chemie, ETH-Zentrum,

Zurich, CH-8092, Germany

SOURCE: Helvetica Chimica Acta (1999), 82(9), 1470-1485

CODEN: HCACAV; ISSN: 0018-019X Verlag Helvetica Chimica Acta

DOCUMENT TYPE: Journal

PERLISHER:

LANGUAGE: English AB A series of trimeric hybrid oligomers was prepared by insertion of different hetero-spacers between two (E)-hex-3-ene-1,5-diyne (E = 1,2-diethynylethene, DEE) moieties, and the optical and electrochem. properties of the resulting π conjugated materials were compared to those of the DEE dimer and trimer, which formally contain a DEE moiety as homo-spacer. The hetero-spacers were: benzenoid (phenylene, naphthalene, biphenylene, anthracene), π -electrondeficient (pyrazine, pyridine) and π-electron-rich (thiophene, furan) aromatic rings, and trans-Pt(PEt3)2. The hybrid oligomers were synthesized using the method of K. Sonogashira et al. (1978), i.e., cross-coupling between monodeprotected DEE and the appropriately bis-functionalized spacer. UV/VIS data revealed that the majority of the hetero-spacers were less effective than the homo-spacer DEE in facilitating $\pi\text{-electron}$ delocalization along the linearly conjugated oligomeric backbone. With increasing degree of benzenoid aromaticity in the hetero-spacer, the electronic communication between the terminal DEE moieties in the hybrid oligomers was reduced. As a remarkable exception, a large bathochromic shift of the longest-wavelength absorption maximum, which is indicative of enhanced π -electron delocalization, was obtained upon introducing an anthracene-9,10-diyl moiety as hetero-spacer. Electrochem. studies by cyclic and steady-state voltammetry confirmed the limited extent of π -electron delocalization in the majority of the hybrid oligomers. The fluorescence properties of many of the DEE hybrid materials were dramatically enhanced upon incorporation of the heterospacers. The heterocyclic derivs. containing pyridine, pyrazine, or thiophene spacers, resp., displayed a strong fluorescence emission, demonstrating the value of combining repeat units to modulate oligomeric and polymeric properties. The pyridine derivative provided an interesting example of a mol. system, in which both the electronic absorption and emission characteristics can be reversibly switched as a function of pH.

IT 149816-79-39, 4-Bis[(E)-3,4-bis[(tertbutyl)dimethylsilyloxy]methyl]-6-(trimethylsilyl)-hex-3-ene-1,5diynvl]benzene 249616-82-82, 2,6-Bis[[0]-3,4-bis[[(tert-butyl)dimethylsilyloxy]methyl]-6-(trimethylsilyl)-bex-3-ene-1,5-diynyl]napthalene 2495(2-3-3)9 ,3,0-Bis[[0]-3,4-bis[[(tert-butyl)dimethylsilyloxy]methyl]-6-(trimethylsilyl)-bex-3-ene-1,5-diynyl]anthracene 2495(6-84-02-2395(6-8)-32, 1,4-35[[0]-3,4-bis[[(tert-butyl)dimethylsilyl)-ymethyl]-6-(trimethylsilyl)-bex-3-ene-1,5-diynyl]-

2,3,5,6-tetramethylbenzene 049616-88-42 249616-89-89 , 2,5-315([8]-3,4-bis[[(tert-butyl)dimethylsily]xoxy]methyl]-6-(trimethylsilyl)-hex-3-ene-1,5-diynyl]pyrazine 049616-30-82 249656-31-39, 2,5-315([8]-3,4-bis[(tert-

butyl/dimethylsilyloxy]methyl]-6-(trimethylsilyl)-hex-3-ene-1,5-diwnyl]furan

RI: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and modulation of π-electron conjugation in oligoacetylene chromophores by central spacer with variable electron d.)

RN 249616-79-3 CAPLUS

CN 4,9-Dioxa-3,10-disiladodec-6-ene, 6,6'-(1,4-phenylenedi-2,1-ethynediyl)bis[2,2,3,3,10,10,11,11-octamethyl-7-[(trimethylsilyl)ethynyl]-, (6E,6'E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

RN 249616-82-8 CAPLUS

CN 4,9-Dioxa-3,10-disiladodec-6-ene, 6,6'-(2,6-naphthalenediyldi-2,1ethynediyl)bis[2,2,3,3,10,10,11,11-octamethyl-7-[(trimethylsilyl)ethynyl]-, (6E,6'E)- (9CI) (CA INDEX NAME)

PAGE 1-B

__SiMe3

- RN 249616-83-9 CAPLUS
- CN 4,9-Dioxa-3,10-disiladodec-6-ene, 6,6'-(9,10-anthracenediyldi-2,1-ethynediyl)bis[2,2,3,3,10,10,11,11-octamethyl-7-[(trimethylsilyl)ethynyl]-, (6E,6'E)-(9CI) (CA INDEX NAME)

Double bond geometry as shown.

- RN 249616-84-0 CAPLUS
- CN 4,9-Dioxa-3,10-disiladodec-6-ene, 6,6'-[(2,3,5,6-tetrafluoro-1,4-phenylene)di-2,1-ethynediyl]bis[2,2,3,3,10,10,11,11-octamethyl-7-[(trimethylsilyl)ethynyl]-, (6E,6'E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

- RN 249616-87-3 CAPLUS
- CN 4,9-Dioxa-3,10-disiladodec-6-ene, 6,6'-[(2,3,5,6-tetramethyl-1,4-phenylene)di-2,1-ethynediyl]bis[2,2,3,3,10,10,11,11-octamethyl-7-[(trimethylsilyl)ethynyl]-, (6E,6'E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

- RN 249616-88-4 CAPLUS
- CN Pyridine, 2,5-bis[(3E)-3,4-bis[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]-6-(trimethylsilyl)-3-hexene-1,5-diya-1-yl]- (CA INDEX NAME)

- RN 249616-89-5 CAPLUS
- CN Pyrazine, 2,5-bis[(3E)-3,4-bis[[[(1,1dimethylethyl)dimethylsilyl]oxy]methyl]-6-(trimethylsilyl)-3-hexene-1,5diyn-1-yl]- (CA INDEX NAME)

Double bond geometry as shown.

- RN 249616-90-8 CAPLUS
- CN 4,9-Dioxa-3,10-disiladodec-6-ene, 6,6'-(2,5-thiophenediyldi-2,1ethynediyl)bis[2,2,3,3,10,10,11,11-octamethyl-7-[(trimethylsilyl)ethynyl]-, (6E,6'E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

- RN 249616-91-9 CAPLUS
- CN 4,9-Dioxa-3,10-disiladodec-6-ene, 6,6'-(2,5-furandiyldi-2,1-ethynediyl)bis[2,2,3,3,10,10,11,11-octamethyl-7-[(trimethylsilyl)ethynyl]-, (6E,6'E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

OS.CITING REF COUNT: 29 THERE ARE 29 CAPLUS RECORDS THAT CITE THIS

RECORD (29 CITINGS)

REFERENCE COUNT: 69 THERE ARE 69 CITED REFERENCES AVAILABLE FOR THIS

RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

18 ANSWER 33 OF 39 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1998:756297 CAPLUS Full-text

DOCUMENT NUMBER: 130:118607

TITLE: Porphyrin-[(E)-1,2-diethynylethene] scaffolding.

Synthesis and optical and electrochemical properties

of multinanometer-sized porphyrin arrays

AUTHOR(S): Wytko, Jennifer; Berl, Volker; McLaughlin, Mark;

Tykwinski, Rik R.; Schreiber, Martin; Diederich, Francois; Boudon, Corinne; Gisselbrecht, Jean-Paul;

Gross, Maurice

CORPORATE SOURCE: Laboratorium Organische Chemie, ETH-Zentrum, Zurich,

CH-8092, Switz.

SOURCE: Helvetica Chimica Acta (1998), 81(11), 1964-1977

CODEN: HCACAV; ISSN: 0018-019X

PUBLISHER: Verlag Helvetica Chimica Acta AG

DOCUMENT TYPE: Journal

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Two series of linearly conjugated hybrid materials, consisting of (E)-1,2diethynylethene (DEE; hex-3-ene-1,5-divne) and Zn(II) porphyrin components, were prepared by PdO-catalyzed cross-coupling reactions. In 1 series, 1 or 2 DEE substituents were introduced into the meso-positions of the Zn(II) porphyrins, leading from Zn 5,15bis{[(ethoxycarbonyl)propoxy]phenyl)porphinate (1) to I and II (n = 1; R = SiMe2tBu). The second series contains the linearly π -conjugated mol. rods III (n=1-3) that span a length range from 23 Å for III (n=1) to 53 Å for III (n = 3). The larger rods III (n = 2 and 3) consist of 2 or 3 porphyrin moieties, resp., that are bridged at the meso-positions by trans-enedignediyl (hex-3-ene-1,5-divne-1,6-divl) linkers. The UV/VIS spectra in the series I, II, and III (n = 1) showed a strong bathochromic shift of both Soret and Q bands of the Zn(II) porphyrin as a result of the addition of DEE substituents. Upon changing from I to II, the Q band was further bathochromically shifted, whereas the Soret band remained nearly at the same position but became broadened and displayed a shoulder on the lower-wavelength edge as a result of excitonic coupling. The close resemblance between the UV/Vis spectra of III (n = 2 and 3) suggests that saturation of the optical properties in the oligomeric series already occurs at the stage of dimeric III (n = 2). Stationary voltammetric investigations showed that the DEE substituents act as strong electron acceptors which induce large anodic shifts in the 1st reduction potential upon changing from I to II (ΔE = 190 mV) and to III (n = 1) ($\Delta E = 340 \text{ mV}$). Increasing the number of porphyrin moieties upon changing from III (n = 1) to III (n = 2) had no effect on the 1st reduction potential vet the 1st oxidation potential was substantially lowered ($\Delta E = 110 \text{ mV}$). Large differences in the potentials for 1-electron oxidation of the 2 porphyrin moieties in III (n = 2) (AE = 200 mV) confirmed the existence of substantial electronic communication between the 2 macrocycles across the

IT 219493-26-3 219483-27-9 RL: FMU (Formation, unclassified); PRP (Properties); FORM (Formation,

(elec. potential of couple containing)

trans-enedivnedivl bridge.

RN 219483-26-8 CAPLUS

CN Zinc(1+), [[diethyl 4,4'-[[10,20-bis[(3E)-3,4-bis[[[(1,1dimethylethyl)dimethylsilyl]oxy]methyl]-6-(trimethylsilyl)-3-hexene-1,4divnyl]-21H,23H-porphine-5,15-divl-KN21, KN22, KN23, KN247bis(4,1phenyleneoxy)]bis[butanoato]](2-\]-, (SP-4-1)- (9CI) (CA INDEX NAME)

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PAGE 1-B

—OEt

RN 219483-27-9 CAPLUS

CN Zinc(2+), [[diethyl 4,4'-[[10,20-bis[(3E)-3,4-bis[[[(1,1dimethylethyl)dimethylsilyl]oxy]methyl]-6-(trimethylsilyl)-3-hexene-1,4diynyl]-21H,23H-porphine-5,15-diylkN21, kN22, kN23, kN24]bis(4,1phenyleneoxy)]bis[butanoato]](2-)]-, (SP-4-1)- (9CI) (CA INDEX NAME)

PAGE 1-B

PAGE 1-B

_03t

IT 219683-13-38

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of reactant for preparation zinc porphyrin diethynylethene monomeric, dimeric, and trimeric complexes and NMR)

RN 219483-18-8 CAPLUS

CN Zinc, [[diethyl 4,4'-[[10,20-bis[[3E]-3,4-bis[[[[1,1-dimethylethyl]dimethylsilyl]oxy]methyl]-3-hexene-1,5-diynyl]-21H,23H-

__OEt

IT 213483-19-99

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation, UV spectra, electrochem. redox behavior and conversion to

trinuclear complex and NMR)

RN 219483-19-9 CAPLUS

CN Zinc, [µ-[[tetraethyl 4,4',4'',4'',-[[[3E]-3,4-bis][[[1,1-dinethylethyl]dinethylsilyl]oxy]nethyl]-3-hexene-1,5-diyne-1,6-diyl]bis[[20-[[3E]-3,4-bis][[[1,1-dinethylethyl]dinethylsilyl]oxy]methyl]-6-[trimethylsilyl]-3-hexene-1,5-diynyl]-21H,23H-porphine-10,5,15-triyl-kd12,Kd22,kd23,kd24]-4,1-

phenyleneoxy]]tetrakis[butanoato]](4-)]]di- (9CI) (CA INDEX NAME)

PAGE 1-B

PAGS 2-A

St0-C-(CE2)3-0

St0-C-

IT 213483-15-50

R1: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation, UV spectra, electrochem. redox behavior, and deprotection and

NMR) RN 219483-15-5 CAPLUS

CN Zinc, [[diethy] 4,4'-[[10,20-bis](3E)-3,4-bis[[[(1,1-disethylethyl] diverbylsily]] oxyleithyl -6-(trimethylsily])-3-hexene-1,4-diyny]-21B,28H-porphine-5,15-diy-xh22,xh22,xh22,xh24,bis(4,1-phenyleneoxy][bis[btranoto]][2-]]-, (SP-4-1)- (9CI) (CA INDEX NAME)

__OBt

OS.CITING REF COUNT:

45 THERE ARE 45 CAPLUS RECORDS THAT CITE THIS

RECORD (45 CITINGS)

REFERENCE COUNT:

64 THERE ARE 64 CITED REFERENCES AVAILABLE FOR THIS RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 34 OF 39 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1998:606810 CAPLUS Full-text

DOCUMENT NUMBER: 129:302407

ORIGINAL REFERENCE NO.: 129:61683a,61686a

TITLE: Synthesis of expanded planar dehydrobenzoannulenes: weakly diatropic, weakly paratropic, or atropic?

AUTEOR(S): Wan, W. Brad, Kimball, David B., Haley, Michael M. CORPORATE SOURCE: Department of Chemistry, University of Oregon, Oregon,

97403-1253, USA

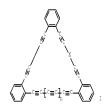
SOURCE: Tetrahedron letters (1998), 39(38), 6795-6798

CODEN: TELEAY; ISSN: 0040-4039

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 129:302407

GΙ



- AB Use of a Cu/Pd cross-coupling strategy has led to the synthesis of the first dehydrobenzoannulenes I (K = C.tplbond.C, (E)-CRCE; n = 0,1] containing triacetylenic linkages. NMR studies of these macrocycles and comparison with other known systems indicate that, in spite of their large size and extensive benzamelation, dehydrobenzoannulenes possess weak indiced ring currents.
- II 216626-16-79 219623-17-88 214608-18-99 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of expanded planar dehydrobenzannulenes with triacetylenic linkages)

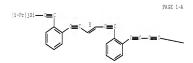
RN 214628-16-7 CAPLUS

CN Benzene, 1-[(3E)-6-(trimethylsilyl)-3-hexene-1,5-diyn-1-yl]-2-[2-[tris(1-methylethyl)silyl]ethynyl]- (CA INDEX NAME)

Double bond geometry as shown.

RN 214628-17-8 CAPLUS

CN Silane, tris(1-methylethyl)[[2-[(3E)-6-[2-[4-[2-[[tris(1-methylethyl)silyl]ethynyl]phenyl]-1,3-butadiynyl]phenyl]-3-hexene-1,5-diynyl]phenyl]ethynyl]- (9CI) (CA INDEX NAME)



PAGE 1-B



RN 214628-18-9 CAPLUS

CN Silane, tris(1-methylethyl)[[2-[6-[2-[(3E)-6-[2-[[tris(1methylethyl)silyl]ethynyl]phenyl]-3-hexene-1,5-diynyl]phenyl]-1,3,5hexatriynyl]phenyl]ethynyl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-B



25 THERE ARE 25 CAPLUS RECORDS THAT CITE THIS OS.CITING REF COUNT:

RECORD (26 CITINGS)

REFERENCE COUNT: THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 35 OF 39 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1994:680471 CAPLUS Full-text DOCUMENT NUMBER: 121:280471 ORIGINAL REFERENCE NO.: 121:51203a,51206a

Preparation of dynemicin analogs as bactericides and

antitumor agents

Smith, Adrian L.; Hwang, Chan Kou; Wenderborn, INVENTOR(S):

Sebastian V.; Nicolaou, Kyriacos C.; Schreiner, Erwin P.; Stahl, Wilhelm; Dai, Wei Min; Maligres, Peter E.;

Suzuki, Toshio

PATENT ASSIGNEE(S): Scripps Research Institute, USA SOURCE:

U.S., 114 pp. Cont.-in-part of U.S.Ser. No.

APPLICATION NO.

US 1992-939104

WO 1993-US4708

DATE

A2 19920901

A 19930518

886,984, abandoned. CODEN: USXXAM

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 5

PATENT INFORMATION:

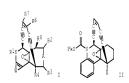
PR

| PATENT | NO. | KIND | DATE |
|--------|-----|------|------|

| | | | | | | - | | | | | | | - | | | |
|-------|-------|------|------|-----|-----|-----|------|------|-------|--------|--------|-------|-------|-------|-----|----|
| | | | | | | | | | | | 939104 | | | | | |
| US | 5276 | 159 | | | A | | 1994 | 0104 | US | 1992- | 886984 | | 15 | 9205 | 21 | |
| US | 5500 | 432 | | | Α | | 1996 | 0319 | US | 1993- | 46626 | | 15 | 99304 | 14 | |
| WO | 9323 | 046 | | | A1 | | 1993 | 1125 | WO | 1993- | US4708 | | 15 | 9305 | 18 | |
| | W: | AU, | CA, | FI, | JP, | MO | | | | | | | | | | |
| | RW: | AT, | BE, | CH, | DE, | DK, | ES, | FR, | GB, G | R, IE, | IT, I | , MC, | NL, | PΤ, | SE | |
| AU | 9343 | 807 | | | A | | 1993 | 1213 | AU | 1993- | 43807 | | 15 | 9305 | 18 | |
| AU | 6804 | 18 | | | B2 | | 1997 | 0731 | | | | | | | | |
| EP | 6412 | 07 | | | A1 | | 1995 | 0308 | EP | 1993- | 913966 | | 19 | 99305 | 18 | |
| | R: | AT, | BE, | CH, | DE, | DK, | ES, | FR, | GB, G | R, IE, | II, LI | , LU, | MC, | NL, | PΤ, | SE |
| JP | 0750 | 8037 | | | Τ | | 1995 | 0907 | JP | 1994- | 503816 | | 19 | 99305 | 18 | |
| US | 5527 | 805 | | | Α | | 1996 | 0618 | US | 1994- | 184580 | | 15 | 99401 | 21 | |
| FI | 9405 | 427 | | | A | | 1995 | 0118 | FI | 1994- | 5427 | | 15 | 99411 | 18 | |
| MO | 9404 | 429 | | | A | | 1995 | 0123 | NO | 1994- | 4429 | | 15 | 99411 | 18 | |
| IORIT | Y APP | LN. | INFO | . : | | | | | US | 1990- | 562269 | I | 32 1 | 99008 | 01 | |
| | | | | | | | | | US | 1991- | 673199 | 1 | 32 19 | 9103 | 21 | |
| | | | | | | | | | US | 1991- | 734613 | 1 | 32 15 | 9107 | 23 | |
| | | | | | | | | | US | 1991- | 788225 | 1 | 32 19 | 99111 | .05 | |
| | | | | | | | | | US | 1992- | 886984 | 1 | 32 19 | 99205 | 21 | |
| | | | | | | | | | | | | | | | | |

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OTHER SOURCE(S): MARPAT 121:280471



AB The title compds. I [A = double or single bond; R1 = H, alkyl, phenoxycarbonyl, etc.; R2 = H, carboxyl, hydroxylmethyl, etc.; R3 = H, alkoxy; R4 = H, hydroxyl, alkoxy, etc.; R6 and R7 are each H or together with the intervening vinylene group form a one, two or three fused aromatic sixmembered ring system; W together with the bonded, intervening, vinylene group (i.e., the unsatd. carbon atoms bonded to W) forms a substituted aromatic hydrocarbyl ring system containing 1, 2, or 3 six-membered rings such that said fused ring compound contains 3, 4, or 5 fused 6-membered rings all but two of which rings are aromatic, and in which that aromatic hydrocarbyl ring

system, W, is joined [a,b] to the structure shows; 88 = 8, or Me; a provise is given] are prepared Title compound II (X = 08) (preparation given) in vitro exhibited ICS0 of 6.3 x 10-6 M against a variety of cancer cell lines. II (X = 8) in vitro exhibited ICS0 of 5.0 x 10-6 M against a variety of cancer cell lines.

IT 144127-80-DP 144127-81-18

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and reaction of, in preparation of bactericide and antitumor

RN 144127-80-0 CAPLUS

6 6,16=Dpoxyphenenthridine=5(6E)-carboxylic acid,
2-[3-[(1,1-dinethylethylldiphenylsilylloxy]-1-proppyyl]-7,8,9,10tetrahydro-10-cxo-6-[6-(trimethylsilyll)-3-hexene-1,5-diynyl]-, phenyl
ester, (6c(2),6sB)108B)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

Double bond geometry as shown.

RN 144127-81-1 CAPLUS

CN 6a,10a-Epoxyphenanthridine-5(6H)-carboxylic acid, 2-[3-[(1/1-dinethylethyldiphenylsily]loxy]-1-propynyl]-6-(3-hexene-1,5-dinyl)-7-8,9,10-tetrahydro-10-oxo-, phenyl ester, [6x(2),68],108]- (921) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.

OS.CITING REF COUNT:

4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD
(4 CITINGS)

REFERENCE COUNT:

13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 36 OF 39 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1994:680470 CAPLUS <u>Full-text</u>

DOCUMENT NUMBER: 121:280470
ORIGINAL REFERENCE NO.: 121:51202h,51203a

TTLE: Preparation of dynemicin analogs as DNA binding,

antibiotic, and antitumor agents.

INVENTOR(S): Smith, Adrian L.; Hwang, Chan Kou; Wendeborn,
Schaefian W.: Nicolagu, Kuriscas C.: Schreiner Erwi

Sebastian V.; Nicolaou, Kyriacos C.; Schreiner, Erwin P.; Stahl, Wilhelm; Dai, Wei Min; Maligres, Peter E.;

Suzuki, Toshio

PATENT ASSIGNEE(S): Scripps Research Institute, USA

SOURCE: U.S., 109 pp. Cont.-in-part of U.S. Ser. No. 788,225.

CODEN: USXXAM

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 5

PATENT INFORMATION:

OTHER SOURCE(S):

| | PA: | ENT | NO. | | KIN |) | DATE | | AF | PLIC | ATI | ON NO | | | DATE | | |
|-------|-----|------|-----|------|-----------|---|-------|------|-------|------|------|-------|-------|------|-------|------|----|
| | US | 5276 | 159 | | A | | 1994 | 0104 | US | 199 | 2-81 | 36984 | | | 19920 | 521 | |
| | US | 5281 | 710 | | A | | 1994 | 0125 | US | 199 | 2-93 | 39104 | | | 19920 | 901 | |
| | US | 5500 | 432 | | Α | | 1996 | 0319 | US | 199 | 3-4 | 5626 | | | 19930 | 1414 | |
| | | 9323 | | | | | | | | | | | | | | | |
| | | | | | JP, | | 2330 | | | | | | | | 13300 | 010 | |
| | | | | | | | ES. | FR. | GB. G | R. I | Ε. : | IT. 1 | U, MC | . NI | . PT. | SE | |
| | AU | 9343 | | | | | | | | | | | | | | | |
| | Att | 6804 | | | | | 1997 | | | | | | | | | | |
| | | 6412 | | | | | | | | 199 | 3-9 | 13966 | | | 19930 | 1518 | |
| | | R: | | | | | | | | | | | I, LU | | | | Si |
| | JP | 0750 | | | | | | | | | | | , | | | | - |
| | IIS | 5527 | 805 | | | | | | | | | | | | | | |
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* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

MARPAT 121:280470

AB Title compds. [I; R1 = 3, alkyl, PhO2C, PhCB202C, 9-fluorenylmethoxycarbonyl, co-nitrobensyloxycarbonyl, (substituted) alkoxycarbonyl; R2 = 8, CO2B, CB203, CB203, carbonyloxylaly; R3 = 8, alkoxy; R4 = 8, OB, alkoxy, voyacetic acid, oxyacetic hydrocarbyl or benzyl ester, oxyacetic amide, acyloxy, etc.; R6, R7 = B; R6R7 = atoms to form a l, 2, or 3-fused aromatic 6-membered ring system; R8 = 8, Me, with provisors A = double or single bond; M = atoms to form an aromatic hydrocarbyl ring system containing 1, 2, or 3 six-membered rings such that the fused ring compound contains 3, 4, or 5 fused rings, all but 2 of which are aromatic], were prepared (himeric compds. having the fused ring system compound as an aglycon bonded to (i) a supar molety as the oligosaccharide portion or (ii) a monoclonal antibody or antibody combining site portion thereof that immunoreacts with target tumor cells are also

disclosed. Thus, title compound III (preparable via claimed compound II) inhibited Molt-4 T-cell leukemia with IC50 = 2.0 + 10-14 M; III was 1-8 orders of magnitude more active against tumor cells than against normal cells. I structure-activity relationships are discussed.

IT 144127-31-1P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of, as DNA binding, antibiotic, and antitumor agent)

RN 144127-81-1 CAPLUS

CN 6a,10a-Epoxyphenanthridine-5(6H)-carboxylic acid, 2-[3-[[(1,1-dimethylethyl)diphenylsilyl]oxy]-1-propynyl]-6-(3-hexene-1,5-

diynyl)-7,8,9,10-tetrahydro-10-oxo-, phenyl ester, $\lceil 6\alpha(Z), 6a\beta, 10a\beta \rceil - (9CI)$ (CA INDEX NAME)

Relative stereochemistry. Double bond geometry as shown.

IT 144127-80-08

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of, as intermediate for DNA binding, antibiotic, and antitumor dynemicin analog)

RN 144127-80-0 CAPLUS

6a,10a-Epoxyphenanthridine-5(6H)-carboxylic acid, 2-[3-[[(1,1-dimethylethyl)diphenylsilyl]oxy]-1-propynyl]-7,8,9,10tetrahydro-10-oxo-6-[6-(trimethylsily1)-3-hexene-1,5-diyny1]-, phenyl ester, $[6\alpha(Z), 6a\beta, 10a\beta]$ - (9CI) (CA INDEX NAME)

Relative stereochemistry. Double bond geometry as shown.

OS.CITING REF COUNT: THERE ARE 7 CAPLUS RECORDS THAT CITE THIS RECORD (7 CITINGS)

L8 ANSWER 37 OF 39 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1992:633659 CAPLUS Full-text DOCUMENT NUMBER: 117:233659

CRIGINAL REFERENCE NO.: 117:40395a,40398a

Molecular design and chemical synthesis of potent enedignes. 1. Dynemicin model systems equipped with

N-tethered triggering devices

Nicolaou, K. C.; Maligres, P.; Suzuki, T.; Wendeborn,

S. V.; Dai, W. M.; Chadha, R. K.

Dep. Chem., Scripps Res. Inst., La Jolla, CA, 92037,

Journal of the American Chemical Society (1992).

114(23), 8890-907

CODEN: JACSAT; ISSN: 0002-7863

DOCUMENT TYPE: Journal

LANGUAGE: English

TITLE:

AUTHOR(S):

SOURCE:

CORPORATE SOURCE:



AB In this article the mol. design and chemical synthesis of a series of enediynes I (R = Ph, 1-naphthyl, 2-naphthyl; R1 = H, MeC, HCCH2CH2O, HOCH2C.tplbond.C; R2 = H, MeO, HOCH2CH2O) related to the dynamicin A structure and carrying N-tethered triggering devices are described. The design envisioned the [(arylsulfonyl)ethoxy]carbonyl group attached at the nitrogen atom as a triggering device for the Bergman cycloaromatization reaction because of its ability to undergo β -elimination under basic conditions. liberating the labile free amine intermediate. A number of tethering groups on the aromatic ring were also installed in these systems for future incorporation of other desirable moieties such as delivery systems and solubility enhancers. Bergman cycloaromatization expts. under basic and acidic conditions demonstrated the abilities of these compds. to generate benzenoid diradicals. A number of potent DNA-cleaving compds. and cytotoxic agents emerged from these studies.

IT 144127-80-09

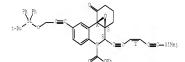
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and desilylation of)

RN 144127-80-0 CAPLUS

CN 6a, 10a-Epoxyphenanthridine-5(6H)-carboxylic acid, 2-[3-[[(1,1-dimethylethyl)diphenylsilyl]oxy]-1-propynyl]-7,8,9,10tetrahydro-10-oxo-6-[6-(trimethylsilyl)-3-hexene-1,5-diynyl]-, phenyl ester, [6\(\alpha(Z), 6a\beta, 10a\beta] - (9CI) (CA INDEX NAME)

Relative stereochemistry. Double bond geometry as shown.



IT 144107-81-1P

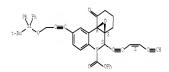
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and intramol. cycloaddn. reaction of, epoxyhexenediynophenanthridine from)

RN 144127-81-1 CAPLUS

CN 6a, 10a-Epoxyphenanthridine-5(6H)-carboxylic acid, 2-[3-[[(1,1-dimethylethyl]diphenylsilyl]oxy]-1-propynyl]-6-(3-hexene-1,5diynyl)-7,8,9,10-tetrahydro-10-oxo-, phenyl ester, $[6\alpha(Z), 6a\beta, 10a\beta] - (9CI)$ (CA INDEX NAME)

Relative stereochemistry. Double bond geometry as shown.



OS.CITING REF COUNT: 31 THERE ARE 31 CAPLUS RECORDS THAT CITE THIS RECORD (31 CITINGS)

L8 ANSWER 38 OF 39 CAPLUS COPYRIGHT 2009 ACS on STN 1989:212183 CAPLUS Full-text ACCESSION NUMBER: DOCUMENT NUMBER:

ORIGINAL REFERENCE NO.: 110:35199a,35202a

A short route to dehydro[12]annulenes TITLE: Huynh Chanh; Linstrumelle, Gerard AUTHOR(S): lab. Chim., Ec. Norm. Super., Paris, 75231, Fr. CORPORATE SOURCE: Tetrahedron (1988), 44(20), 6337-44 SOURCE:

CODEN: TETRAB; ISSN: 0040-4020

DOCUMENT TYPE: Journal LANGUAGE: English OTHER SOURCE(S): CASREACT 110:212183



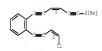
- AB A novel synthesis of dehydro[12]annulenes from o-Br2C6H4 is based on selective Pd(0)-Cu(I) coupling reactions of aryl and vinyl halides with terminal acetylenes. Thus, coupling reaction of o-Br2C6H4 with HC.tplbond.CCMe2OH gave 63% o-BrC6H4C.tplbond.CCMe2OH. Cleavage with NaOH followed by in situ trimerization gave 36% dehydroannulene I.
- TT 109651-32-39

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and desilylation of)
RN 120651-32-3 CAPLUS

CN Silane, [6-[2-(4-chloro-3-buten-1-ynyl)phenyl]-3-hexene-1,5diynyl]trimethyl-, (Z,Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



IT 120653-36-79

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and intramol. coupling reaction of, dehydroannulene from)

RN 120651-36-7 CAPLUS

CN Benzene, 1-(4-chloro-3-buten-1-ynyl)-2-(3-hexene-1,5-diynyl)-, (Z,Z)-(9CI) (CA INDEX NAME)

Double bond geometry as shown.



L8 ANSWER 39 OF 39 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1968:78330 CAPLUS Full-text

DOCUMENT NUMBER: 68:78330 ORIGINAL REFERENCE NO.: 68:15123a,15126a

Interaction of diiodoethylene with copper acetylides Ukhin, L. Yu.; Sladkov, A. M.; Gorshkov, V. I. TITLE: AUTHOR(S): CORPORATE SOURCE: Inst. Elementoorg. Soedin, Moscow, USSR SOURCE: Zhurnal Organicheskoi Khimii (1968), 4(1), 25-7

CODEN: ZORKAE: ISSN: 0514-7492

DOCUMENT TYPE: Journal LANGUAGE: Russian

AB Reaction of trans-diiodoethylene (I) with Cu acetylides gave the condensation

products of general formula RC.tplbond.CCH:CHI (IIa) or

RC.tplbond.CCH:CHC.tplbond.CR (IIb). The structure of products was confirmed by ir and mass spectroscopy; trans configuration of the double bond was preserved. For example, a mixture of 3.29 g. (PhC.tplbond.C)2Cu, 2.78 g. I, and 100 ml. HCONMe2 was stirred 4 hrs. at 90° and then refluxed 2 hrs. Cooling, filtration, and addition of H2O to the filtrate precipitated 56% IIb (R = Ph) m. 111-12° (heptane). Similarly, IIb (R = Bu) b4 117°, n24D 1.5173 was prepared Boiling 23.4 g. (BuC.tplbond.C)2Cu with 44.8 g. I in 125 ml. pyridine for 10 min. gave 40% IIa (R = Bu) b5 84-5°, n20D 1.5519. Similarly IIa (R = Ph) b2.5 112-14°, n23D 1,6880 was prepared However boiling (p-IC6H4C.tplbond.C)2Cu, with I in pyridine gave IIa (R = p-IC6H4) m. 125-30° and IIb (R = p-IC6H4) m. 245-7° (C6H6-heptane), separated by crystallization Also (p-ClC6H4C.tplbond.C)2Cu and I gave IIa (R = p-ClC6H4C.tplbond.C) m. 80-5° and IIb (R = p-ClC6H4C.tplbond.C) m. 179-85° (heptane). To further confirm the structures of IIa and IIb they were converted to boranes by refluxing with an excess of decaborane in PhMe solution. The following were characterized (compound, % yield, and m.p. given): 1,2-bis(1-butylbarenyl)ethylene, 62, 153-5° (PhMe): 1-(β-iodovinvl)-2-phenylbarene, -, 227-35° (hexane); 1-(βiodovinyl)-2-butylbarene, -, 72-4°.

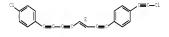
IT 1002669-94-0P

RL: SPN (Synthetic preparation); PRP (Properties); PREP (Preparation) (Interaction of diiodoethylene with copper acetylides)

RN 1082669-94-0 CAPLUS

CN INDEX NAME NOT YET ASSIGNED

Double bond geometry as shown.



FILE 'HOME' ENTERED AT 10:26:39 ON 18 DEC 2009

=> file registry

Uploading C:\Program Files\STNEXP\Queries\10591950-claim 1-v 3.str

A-1000-A

chain nodes :

1 2 3 4 5 6 7 8 9 11 12

chain bonds :

1-2 1-12 2-3 3-4 4-5 5-6 6-7 7-8 8-9 9-11

exact/norm bonds : 6-7 7-8

exact bonds :

1-2 1-12 2-3 3-4 4-5 5-6 8-9 9-11

G1:Cb,Cy,Hy

Match level :

1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS 11:CLASS 12:CLASS

STRUCTURE UPLOADED

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SAMPLE SEARCH INITIATED 10:27:34 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 72 TO ITERATE

100.0% PROCESSED 72 ITERATIONS 1 ANSWERS

SEARCH TIME: 00.00.01

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PROJECTED ITERATIONS: 931 TO 1949

PROJECTED ANSWERS: 1 TO

1 SEA SSS SAM L1

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FULL SEARCH INITIATED 10:27:46 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 1651 TO ITERATE

100.0% PROCESSED 1651 ITERATIONS 44 ANSWERS SEARCH TIME: 00,00.01

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YOU HAVE REQUESTED DATA FROM 11 ANSWERS - CONTINUE? Y/(N):v

L4 ANSWER 1 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN 2009:1167687 CAPLUS Full-text ACCESSION NUMBER:

DOCUMENT NUMBER: 151:470282

Synthesis of hybrid masked triyne-phenylene axial rods TITLE:

containing (E)-B-chlorovinvlsilanes in the

π-conjugated framework

Weller, Michael D.; Kariuki, Benson M.; Cox, Liam R. AUTHOR(S): CORPORATE SOURCE: School of Chemistry, The University of Birmingham,

Birmingham, B15 2T7, UK

SOURCE: Journal of Organic Chemistry (2009), 74(20), 7898-7907

CODEN: JOCEAH; ISSN: 0022-3263 American Chemical Society PUBLISHER:

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Silv1-masked hexavne Me3SiC.tplbond.CCC1:C(SiR3)C.tplbond.CC.tplbond.C(SiR 3):CClC.tplbond.CSiMe3 (7, SiR3 = tBuPh2Si) undergoes fluoride-induced βelimination yielding, after terminal modifications, 1,12-diaryldodecahexaynes; compared to its positional isomer

Me3SiC.tplbond.CC(SiR3):CClC.tplbond.CC.tplbond.CCl:C(SiR3)C.tplbond.CSiMe 3 (2, same SiR3), prepared earlier, the compound 7 provides increased flexibility, allowing introduction of aromatic spacer groups, useful in production of carbyne-type mol. wires. A two-directional synthesis of a masked hexayne 7, in which two β -chlorovinylsilanes protect two of the internal alkynes, is reported. The key step involves the Pd-catalyzed oxidative dimerization of alkyne HC.tplbond.CC(SiR3):CClCH2OTHP (10) to provide diyne THPOCH2CC1:C(SiR3)C.tplbond.CC.tplbond.CC(SiR3):CC1CH2CTHP (12), which is elaborated into centrosym. masked hexayne 7 in four steps. Masked hexavne 7 is a constitutional isomer of masked hexavne 2, which has been used as a monomer unit for oligoyne assembly. Although masked hexagne 7 was not as convenient a building block as 2 for application in oligovne assembly, one of its precursors, namely alkyne 10, could be used successfully in Sonogashira couplings, which allowed the incorporation of aromatic spacers and the

formation of hybrid masked trivne-phenylenes Me3SiC.tplbond.CCCl:C(SiR3)C.tplbond.C-1,4-

C6H4C.tmlbond.CC(SiR3):CClC.tmlbond.CSiMe3 (20) and

[Me3SiC.tplbond.CCCl:C(SiR3)C.tplbond.C-1,4-C6H4C.tplbond.C]2 (28). Compds. 20 and 28 both contain removable end-groups, which will permit their application as building blocks for the assembly of classes of long-chain, x-conjugated rod-like mols. Rod-like mol.

Me2C (OH) C.tplbond.CCCl:C(SiR3) (C.tplbond.CC6H4C.tplbond.C)2C(SiR3):CClC.tp lbond.CCMe2(OH) (34, C6H4 = 1,4-phenylene), which possesses a similar conjugated scaffold as 28, was also prepared by using a similar strategy. Treatment of 34 with TBAF effected a 2-fold dechlorosilylation to provide a rigid rod mol. Me2C(OH)(C.tplbond.C)3C6H4(C.tplbond.C)2C6H4(C.tplbond.C) 3CMe2(OH) (35) in which two 1,4-phenylene units interrupt an octayne scaffold.

IT 1191093-35-2P 1191093-44-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of π-conjugated p-phenylene-bridged β-chloro silyl-substituted enymes as precursors for arylene-containing polyyne mol.

RN 1191093-35-2 CAPLUS

CN 2H-Pyran, 2-[[(2E)-2-chloro-3-[(1,1-dimethylethyl)diphenylsilyl]-5-[4-[2-(trimethylsilyl)ethynyl]phenyl]-2-penten-4-yn-1-yl]oxy]tetrahydro- (CA

INDEX NAME)

Double bond geometry as shown.

RN 1191093-44-3 CAPLUS CN INDEX NAME NOT YET ASSIGNED

Double bond geometry as shown.

$$\begin{array}{c} P_{b-3} \\ P_{b-3} \\ P_{b-3} \end{array} \stackrel{\text{gr}}{=} C \longrightarrow \begin{array}{c} P_{b} \\ P_{b-3} \\ P_{b-3} \\ P_{b-3} \end{array} \stackrel{\text{gr}}{=} C \longrightarrow \begin{array}{c} P_{b} \\ P_{b-3} \\ P$$

REFERENCE COUNT: 60 THERE ARE 60 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN 2005:1004691 CAPLUS Full-text ACCESSION NUMBER:

DOCUMENT NUMBER: 143:306181

Process for preparation of π-conjugated aromatic TITLE:

ring-containing acetylene derivatives as organic electroluminescent devices

Sato, Fumie: Takavama, Yuuki

PATENT ASSIGNED(S): Nissan Chemical Industries, Ltd., Japan

SOURCE: PCT Int. Appl., 82 pp.

CODEN: PIXXD2 DOCUMENT TYPE: Patient. LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION:

INVENTOR(S):

| PAT | PATENT NO. | | | | | D | DATE | | | APPLICATION NO. | | | | | DATE | | | | | |
|---------------|------------|-----|-----|-----|-----|-----|----------|-----|-----|-----------------|-----|-----|-----|-----|----------|----------|-----|----|--|--|
| WO 2005085176 | | | | | A1 | | 20050915 | | | WO 2005-JP3950 | | | | | | 20050308 | | | | |
| | W: | ΑE, | AG, | AL, | AM, | AT, | AU, | AZ, | BA, | BB, | BG, | BR, | BW, | ΒY, | BZ, | CA, | CH, | | | |
| | | CN, | CO, | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EC, | EE, | EG, | ES, | FI, | GB, | GD, | | | |
| | | GΕ, | GH, | GM, | HR, | HU, | ID, | IL, | IN, | IS, | JP, | KΕ, | KG, | ΚP, | KR_{r} | ΚZ, | LC, | | | |
| | | LK, | LR, | LS, | LT, | LU, | LV, | MA, | MD, | MG, | MK, | MN, | MW, | MX, | MZ, | NA, | NI, | | | |
| | | NO, | NZ, | OM, | PG, | PH, | PL, | PΤ, | RO, | RU, | SC, | SD, | SE, | SG, | SK, | SL, | SM, | | | |
| | | SY, | TJ, | IM, | TN, | TR, | TT, | 12, | UA, | UG, | US, | UZ, | VC, | VN, | YU, | ZA, | ZM, | ZW | | |
| | RW: | BW, | GH, | GM, | KΕ, | LS, | MW, | MZ, | NA, | SD, | SL, | SZ, | TZ, | UG, | ZM, | ZW, | AM, | | | |
| | | AZ, | ΒY, | KG, | ΚZ, | MD, | RU, | IJ, | TM, | AT, | BΕ, | BG, | CH, | CY, | CZ, | DE, | DK, | | | |
| | | EE, | ES, | FI, | FR, | GB, | GR, | HU, | IE, | IS, | IT, | LT, | LU, | MC, | NL, | PL, | PT, | | | |
| | | RO, | SE, | SI, | SK, | TR, | BΕ, | ВJ, | CF, | CG, | CI, | CM, | GA, | GN, | GQ, | GW, | ML, | | | |

MR, NE, SN, ID, IG

US 20070176164 A1 20070802 US 2007-591950 20070307
PRIORITY APPLN. INFO:: JP 2004-65446 A 20040309
W0 2005-JP3950 W 20050308

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT OTHER SOURCE(S): MARPAT 143:306181

GΙ

AB This invention pertains to a method for producing r-conjugated aromatic ringcontaining acetylens derive, via coupling reaction in the presence of palladium and Ou[1] catalysts. For example, the compound I was prepared in a multi-step synthesis in good yield. The title compts, are useful as electroluminescent devices.

IT T40810-59-7F 740810-60-00 140810-64-49
T40810-55-50 740810-67-7P 740810-68-89
864683-25-4P 864684-00-80 864684-04-8P
864684-05-3P 864684-11-12

RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (intermediate; preparation of m-conjugated aromatic ring-containing

acetylene

derivs. as organic electroluminescent devices) RN 740810-59-7 CAPLUS

CN Pyridine, 5-[(3E)-4-iodo-3-propyl-3-octen-1-yn-1-y1]-2-[2-[tris(1-methylethyl)sily1]ethynyl]- (CA INDEX NAME)

Double bond geometry as shown.

RN 740810-60-0 CAPLUS

CN Thiophene, 2-[(3E)-4-iodo-3-propyl-3-hepten-1-yn-1-yl]-5-[2-[tris(1-methylethyl)silyl]ethynyl]- (CA INDEX NAME)

Double bond geometry as shown.

$$I \xrightarrow{E} C = C \xrightarrow{S} C = C - Si(Pr-i)3$$

RN 740810-64-4 CAPLUS

CN 3-Butyn-2-ol, 4-[6-[(3E)-3-butyl-4-[2-[6-[2-[tris|1-methylethyl)silyl]ethynyl]-3-pyridinyl]ethynyl]-3-hepten-1-yn-1-yl]-3-pyridinyl]-2-methyl- (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-B



RN 740810-65-5 CAPLUS

CN 3-Butyn-2-ol, 4-[6-[(38)-3-butyl-4-[2-[6-[(38)-3-butyl-4-[2-[6-[(28)-3-butyl-4-[2-[6-[2-[tris:1-methylathyl]s:1yl]ethynyl]-3-pyridinyl]ethynyl]-3-hepten-1-yn-1-yl]-3-pyridinyl]ethynyl]-3-hepten-1-yn-1-yl]-3-pyridinyl]-2-methyl- (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-B

- RN 740810-67-7 CAPLUS
- CN 3-Butyn-2-ol, 2-methyl-4-[5-[(3E)-3-propyl-4-[[5-[[tris[1-methylethyl]silyl]ethynyl]-2-thienyl]ethynyl]-3-hepten-1-yn-1-yl]-2-thienyl]- (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-B



- RN 740810-68-8 CAPLUS

Double bond geometry as shown.

$$\stackrel{\text{Me}}{\underset{\text{Be}}{\longrightarrow}} 0 = \underbrace{\begin{array}{c} -2t \\ 0 = 1 \\ -1 \\ 1 - 2t \end{array}} = \underbrace{\begin{array}{c} -2t \\ 0 = 1 \\ -1 \\ 1 - 2t \end{array}} = \underbrace{\begin{array}{c} -2t \\ 0 = 1 \\ -1 \\ 1 - 2t \end{array}} = \underbrace{\begin{array}{c} -2t \\ 0 = 1 \\ -1 \\ 1 - 2t \end{array}} = \underbrace{\begin{array}{c} -2t \\ 0 = 1 \\ -1 \\ 1 - 2t \end{array}} = \underbrace{\begin{array}{c} -2t \\ 0 = 1 \\ -1 \\ 1 - 2t \end{array}} = \underbrace{\begin{array}{c} -2t \\ 0 = 1 \\ -1 \\ 1 - 2t \end{array}} = \underbrace{\begin{array}{c} -2t \\ 0 = 1 \\ -1 \\ 1 - 2t \end{array}} = \underbrace{\begin{array}{c} -2t \\ 0 = 1 \\ -1 \\ 1 - 2t \end{array}} = \underbrace{\begin{array}{c} -2t \\ 0 = 1 \\ -1 \\ 1 - 2t \end{array}} = \underbrace{\begin{array}{c} -2t \\ 0 = 1 \\ -1 \\ 1 - 2t \end{array}} = \underbrace{\begin{array}{c} -2t \\ 0 = 1 \\ -1 \\ 1 - 2t \end{array}} = \underbrace{\begin{array}{c} -2t \\ 0 = 1 \\ -1 \\ 1 - 2t \end{array}} = \underbrace{\begin{array}{c} -2t \\ 0 = 1 \\ -1 \\ 1 - 2t \end{array}} = \underbrace{\begin{array}{c} -2t \\ 0 = 1 \\ -1 \\ 1 - 2t \end{array}} = \underbrace{\begin{array}{c} -2t \\ 0 = 1 \\ -1 \\ 1 - 2t \end{array}} = \underbrace{\begin{array}{c} -2t \\ 0 = 1 \\ -1 \\ 1 - 2t \end{array}} = \underbrace{\begin{array}{c} -2t \\ 0 = 1 \\ -1 - 2t \end{array}} = \underbrace{\begin{array}{c} -2t \\ 0 = 1 \\ -1 - 2t \end{array}} = \underbrace{\begin{array}{c} -2t \\ 0 = 1 \\ -1 - 2t \end{array}} = \underbrace{\begin{array}{c} -2t \\ 0 = 1 \\ -1 - 2t \end{array}} = \underbrace{\begin{array}{c} -2t \\ 0 = 1 \\ -1 - 2t \end{array}} = \underbrace{\begin{array}{c} -2t \\ 0 = 1 \\ -1 - 2t \end{array}} = \underbrace{\begin{array}{c} -2t \\ 0 = 1 \\ -1 - 2t \end{array}} = \underbrace{\begin{array}{c} -2t \\ 0 = 1 \\ -1 - 2t \end{array}} = \underbrace{\begin{array}{c} -2t \\ 0 = 1 \\ -1 - 2t \end{array}} = \underbrace{\begin{array}{c} -2t \\ 0 = 1 \\ -1 - 2t \end{array}} = \underbrace{\begin{array}{c} -2t \\ 0 = 1 \\ -1 - 2t \end{array}} = \underbrace{\begin{array}{c} -2t \\ 0 = 1 \\ -1 - 2t \end{array}} = \underbrace{\begin{array}{c} -2t \\ 0 = 1 \\ -1 - 2t \end{array}} = \underbrace{\begin{array}{c} -2t \\ 0 = 1 \\ -1 - 2t \end{array}} = \underbrace{\begin{array}{c} -2t \\ 0 = 1 \\ -1 - 2t \end{array}} = \underbrace{\begin{array}{c} -2t \\ 0 = 1 \\ -1 - 2t \end{array}} = \underbrace{\begin{array}{c} -2t \\ 0 = 1 \\ -1 - 2t \end{array}} = \underbrace{\begin{array}{c} -2t \\ 0 = 1 \\ -1 - 2t \end{array}} = \underbrace{\begin{array}{c} -2t \\ 0 = 1 \\ -1 - 2t \end{array}} = \underbrace{\begin{array}{c} -2t \\ 0 = 1 \\ -1 - 2t \end{array}} = \underbrace{\begin{array}{c} -2t \\ 0 = 1 \\ -1 - 2t \end{array}} = \underbrace{\begin{array}{c} -2t \\ 0 = 1 \\ -1 - 2t \end{array}} = \underbrace{\begin{array}{c} -2t \\ 0 = 1 \\ -1 - 2t \end{array}} = \underbrace{\begin{array}{c} -2t \\ 0 = 1 \\ -1 - 2t \end{array}} = \underbrace{\begin{array}{c} -2t \\ 0 = 1 \\ -1 - 2t \end{array}} = \underbrace{\begin{array}{c} -2t \\ 0 = 1 \\ -1 - 2t \end{array}} = \underbrace{\begin{array}{c} -2t \\ 0 = 1 \\ -1 - 2t \end{array}} = \underbrace{\begin{array}{c} -2t \\ 0 = 1 \\ -1 - 2t \end{array}} = \underbrace{\begin{array}{c} -2t \\ 0 = 1 \\ -1 - 2t \end{array}} = \underbrace{\begin{array}{c} -2t \\ 0 = 1 \\ -1 - 2t \end{array}} = \underbrace{\begin{array}{c} -2t \\ 0 = 1 \\ -1 - 2t \end{array}} = \underbrace{\begin{array}{c} -2t \\ 0 = 1 \\ -1 - 2t \end{array}} = \underbrace{\begin{array}{c} -2t \\ 0 = 1 \\ -1 - 2t \end{array}} = \underbrace{\begin{array}{c} -2t \\ 0 = 1 \\ -1 - 2t \end{array}} = \underbrace{\begin{array}{c} -2t \\ 0 = 1 \\ -1 - 2t \end{array}} = \underbrace{\begin{array}{c} -2t \\ 0 = 1 \\ -1 - 2t \end{array}} = \underbrace{\begin{array}{c} -2t \\ 0 = 1 \\ -1 - 2t \end{array}} = \underbrace{\begin{array}{c} -2t \\ 0 = 1 \\ -1 - 2t \end{array}} = \underbrace{\begin{array}{c} -2t \\ 0 = 1 \\ -1 - 2t \end{array}} = \underbrace{\begin{array}{c} -2t \\ 0 = 1 \\ -1 - 2t \end{array}} = \underbrace{\begin{array}{c} -2t \\$$

PAGE 1-B

- RN 864683-95-4 CAPLUS
- CN Thiophene, 2-[(3E)-3-propyl-4-(trimethylsilyl)-3-hepten-1-yn-1-yl]-5-[2-[tris(1-methylethyl)silyl]ethynyl]- (CA INDEX NAME)

Double bond geometry as shown.

- RN 864684-00-4 CAPLUS
- CN Pyridine, 5-[(3E)-3-propyl-4-(trimethylsily1)-3-octen-1-yn-1-y1]-2-[2-[tris(1-methylethyl)sily1]ethynyl]- (CA INDEX NAME)

Double bond geometry as shown.

- RN 864684-04-8 CAPLUS
- CN Thiophene, 2-[(3E)-3,4-dipropyl-6-(trimethylsilyl)-3-hexene-1,5-diyn-1-yl]-5-[2-[tris(1-methylethyl)silyl]ethynyl]- (CA INDEX NAME)

Double bond geometry as shown.

Me3Si-C=C
$$\sum_{n=Pr}^{n-Pr}$$
C=C $\sum_{n=1}^{S}$ C=C-Si(Pr-i)3

- RN 864684-05-9 CAPLUS
- CN Thiophene, 2-[(3E)-4-ethynyl-3-propyl-3-hepten-1-yn-1-yl]-5-[2-{tris(1-methylethyl)silyl]ethynyl]- (CA INDEX NAME)

- RN 864684-31-1 CAPLUS
- CN Benzenanine, N-[4-[(3E)-3,4-dipropyl-6-[4-[2-[tris(]-methylethyl]]]]] ethyryl] behnyl]-3-hexene-1,3-diyn-1-yl] phenyl]-4-[(3E)-3-propyl-4-[2-[4-[2-[tris(]-methylethyl]]]])-3-hexpen-1-yn-1-yl]-M-[4-[(3B)-3-propyl-4-[2-[4-[2-[tris(]-methylethyl]]])-3-heyten-1-yn-1-yl]-M-[4-[(3B)-3-propyl-4-[2-[4-[2-[tris(]-methylethyl]]])])
 CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-B

II 74930-66-6P 740810-68-9P 854504-06-06 864504-21-10 86458-22-00 854504-27-12 864684-24-12D 864504-25-12 760608-26-42 864684-27-59 864504-27-67 766684-29-12 844504-27-06

RL: DEV (Device component use); INF (Industrial manufacture); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(preparation of $\pi\mbox{-conjugated}$ aromatic ring-containing acetylene derivs, as organic

electroluminescent devices)

- RN 740810-66-6 CAPLUS
- CN 3-Buttyr-2-01, 4-[6-[18]-3-butyl-4-[2-[6-[18]-3-butyl-4-[2-[6-[18]-3-butyl-4-[2-[6-[18]-3-butyl-4-[2-[6-[2-[18]-18]-butyl-4-[2-[6-[2-[18]-18]-butyl-4-[2-[6-[2-[18]-3-butyl-4-[2-[6-[2-[2-[18]-3-butyl-3

Double bond geometry as shown.

PAGE 1-A

PAGE 1-B

PAGE 1-C



- RN 740810-69-9 CAPLUS
- CN 3-Bettyn-2-ol, 4-15-[38]-4-[2-[5-[38]-5-ethyl-4-[2-[5-[38]-5-ethyl-3-propyl-4-[2-[5-[4-[5-[2-[tris (1-methylethyl)sily]]-bethianyl]-2-thianyl]ethynyl-3-penten-1-yn-1-yl-1-2-thianyl]ethynyl-3-propyl-3-penten-1-yn-1-yl-2-thianyl-3-propyl-3-penten-1-yn-1-yl-2-thianyl-3-propyl-3-bepten-1-yn-1-yl-2-thianyl-3-propyl-3-bepten-1-yn-1-yl-2-thianyl-3-propyl-3-bepten-1-yn-1-yl-2-thianyl-3-propyl-3-bepten-1-yn-1-yl-2-thianyl-3-propyl-3-bepten-1-yn-1-yl-3-bethyl-3-propyl-3-bepten-1-yn-1-yl-3-bethyl-3-propyl-3-bepten-1-yn-1-yl-3-bethyl-3-propyl-3-bepten-1-yn-1-yl-3-bethyl

PAGE 1-C

__Ne

- RN 864684-06-0 CAPLUS
- CN 2,1,3-Benrothiadiazole, 4-[(3E)-3,4-dipropyl-6-[5-[2-[tris(1-methylethyl)isily]]ethynyl]-2-thienyl]-3-hexene-1,5-diyn-1-yl]-7-[(3E)-3-propyl-4-[2-[5-[2-[tris(1-methylethyl)silyl]ethynyl]-2-thienyl]ethynyl]-3-hepten-1-yn-1-yl]- (CR INDEX NAME)

Double bond geometry as shown.

- RN 864684-21-9 CAPLUS
- CN Thiophene, 2-[(3E)-3,4-dipropyl-6-[4-[(3E)-3-propyl-4-[2-[5-[2-[tris(1-methylethyl)sily]]ethynyl]-2-thienyl]ethynyl]-3-hepten-1-yn-1-yl]phenyl]-3-hexene-1,5-diyn-1-yl]-5-[2-[tris(1-methylethyl)silyl]ethynyl]- (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A

$$\underbrace{ \text{ Comp} }_{\text{ Both }} \text{ Comp} \underbrace{ \text{ Comp} }_{\text{ Both }} \text{ Comp} \text{$$

- RN 864684-22-0 CAPLUS
- CN Benzene, 1-[(38)-3,4-dipropyl-6-[4-[2-[tris]]methylethylsilyl]ethyyl]phenyl]-3-bezene-1,5-diyn-1-yl]-4-[(38)-3-propyl4-[2-[4-[2-[tris](1-methylethyl)silyl]ethyyl]phenyl]ethyyl]-3-hepten-1-yn1-yl]- (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A

PAGS 1-8

- RN 864684-23-1 CAPLUS
- CN Thiophane, 2-[(3E)-3,4-dipropyl-6-[4-[2-[tris(1-methylethyl)silyl]ethylyl]phenyl]-3-hexene-1,5-diyn-1-yl]-5-[(3E)-3-propyl-4-[2-[4-[2-[tris-thylethyl]silyl]ethylyl]phenyl]ethynyl]-3-heptan-1-yn-1-yl]- (CA IDEX NAME)

Double bond geometry as shown.

PAGE 1-A

PAGE 1-B

RN 864684-24-2 CAPLUS

CN Silane, [oxybis[4,1-phenylene[(3E)-3,4-dipropyl-3-hexene-1,5-diyne-6,1-diyl]-4,1-phenylene-2,1-ethynediyl]]bis[tris(1-methylethyl)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

- RN 864684-25-3 CAPLUS
- CN 2,2'-Bithiophene, 5-[(38)-3,4-dipropyl-6-[4-[2-[tris]1-methylethylisily]] ethynyl]phenyl]-3-hexene-1,5-diyn-1-yl]-5'-[(38)-3-propyl-4-[2-[4-[2-[tris[1-methylethyl]silyl]ethynyl]phenyl]ethynyl]-3-heyten-1-yn-1-yl]- (CL NUEK NAME)

Double bond geometry as shown.

RN 864684-26-4 CAPLUS

CN Naphthalene, 2-[(3E)-3,4-digropyl-6-[4-[2-[tris(1-methylethyl)silyl]ethynyl]phenyl]-3-bexene-1,5-diyn-1-yl]-6-[(3E)-3-gropyl-4-[2-[4-[2-[tris(1-methylethyl)silyl]ethynyl]phenyl]ethynyl]-3-heptan-1-yn-1-yl]- (CA INDEX NAME)

Double bond geometry as shown.

- RN 864684-27-5 CAPLUS
- CN Anthracene, 9-[(3E)-3,4-dipropyl-6-[4-[2-[tris[1-methylethyl]silyl]ethyyl]phenyl]-3-bexene-1,5-diyn-1-yl]-10-[(3E)-3-propyl-4-[2-[4-[2-[tris[1-methylethyl]silyl]ethynyl]phenyl]ethynyl]-3-hepten-1-yn-1-yl]- (CR INDEX NAME)

- RN 864684-28-6 CAPLUS
- CN 2,1,3-Benzothiadiazole, 4-[(35)-3,4-dipropyl-6-[4-[2-[tris[1-methylethyl]silyl]ethynyl]phenyl]-3-bexene-1,5-dipn-1-yl]-7-[(35)-3-propyl-4-[2-[4-[2-[tris[1-methylethyl]silyl]ethynyl]phenyl]ethynyl]-3-hepten-1-yn-1-yl]- (CA IDEX NAME)

Double bond geometry as shown.

- RN 864684-29-7 CAPLUS
- CN Pyridazine, 3-[(3E)-3,4-dipropyl-6-[4-[2-[tris[1-methylethyl]si]y]]behyyl]phenyl]-3-hexene-1,5-diyn-1-yl]-6-[(3E)-3-propyl-4-[2-[4-[2-[tris[1-methylethyl]si]y]]ethyyl]phenyl]ethynyl]-3-hepten-1-yn-1-yl]- (CA_NDEX_NAME)

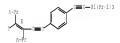
Double bond geometry as shown.

- RN 864684-30-0 CAPLUS
- CN Benzene, 1-[(3E)-3,4-dipropy1-6-[4-[2-[tris(1methylethyl)silyl]schynyl]phenyl]-3-bexene-1,5-diyn-1-yl]-3-[(3E)-5-ethyl-3-pcopy1-4-[2-[4-[2-tris(1-methylethyl)silyl]schynyl]phenyl]schynyl]-3penten-1-yn-1-yl]-5-[(3E)-3-pcopy1-4-[2-[4-[2-[tris(1methylethyl)silyl]ethynyl]phenyl]schynyl]-3-bepten-1-yn-1-yl]- (CA INDEX NAME)

Double bond geometry as shown.

PAGS 1-8

- II 746816-57-5
- RG: RCT (Reactant); RACT (Reactant or reagent) (preparation of π -conjugated aromatic ring-containing acetylene derivs. as organic
 - electroluminescent devices)
- RN 740810-57-5 CAPLUS
- CN Benzene, 1-[(3E)-4-iodo-3-propyl-3-hepten-1-yn-1-yl]-4-[2-[tris(1-methylethyl)silyl]ethynyl]- (CA INDEX NAME)



REFERENCE COUNT:

THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2005:509432 CAPLUS Full-text.

DOCUMENT NUMBER: 143:7446

Synthesis and characterization of cross-conjugated

TITLE:

cliqc(phenylene enynylene)s

AUTHOR(S): Cho, Joon; Zhao, Yuming; Tykwinski, Rik R.

CORPORATE SOURCE: Department of Chemistry, University of Alberta,

Edmonton, AB, T6G 2G2, Can.

SCURCE: ARKIVOC (Gainesville, FL, United States) (2005), (4),

142-150

CODEN: AGFUAR

URL: http://www.arkat-

usa.crg/ark/journal/2005/IO4 Zefirov/1369/1369.pdf

Arkat USA Inc. PERSONAL SHEET

DOCUMENT TYPE: Journal; (online computer file)

LANGUAGE: English

CASREACT 143:7446 OTHER SCURCE(S):

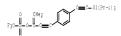
- AB The synthesis and characterization of a series of cross-conjugated oligo(phenylene enynylene)s via the Sonogashira protocol is reported. The structural properties of these oligomers have been established by 1H and 13C MMR and IR spectroscopies, as well as mass spectrometry. Their electronic absorption and emission behavior has been investigated via UV/Vis and fluorescence spectroscopy. The results of this study demonstrate that electronic communication along the conjugated framework of these oligomers is limited due to the presence of a cross-conjugated enyme framework and arylene
- IT 452459-83-7P 852459-85-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of cross-conjugated oligo(phenylene enynylene)s via the Sonogashira reaction)

- RN 852459-83-7 CAPLUS
- Methanesulfonic acid, 1,1,1-trifluoro-,

2-methyl-1-[2-[4-[2-[tris(1-methylethyl)silyl]ethynyl]phenyl]ethynyl]-1propen-1-yl ester (CA INDEX NAME)



RN 852459-85-9 CAPLUS

CN Benzene, 1-[4-methyl-3-[2-[4-[2-[tris(1methylethyl)silyl]ethynyl]phenyl]ethynyl]-3-penten-1-yn-1-yl]-4-[2-[tris(1methylethyl)silyl]ethynyl]- (CA INDEX NAME)

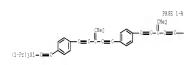
IT £52459-86-0F -352453-87-1P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of cross-conjugated oligo(phenylene enynylene)s via the Sonogashira reaction)

RN 852459-86-0 CAPLUS

CN Benzene, 1,4-bis[4-methyl-3-[2-[4-[2-[tris(1-

methylethyl)silyl]ethynyl]phenyl]ethynyl]-3-penten-1-yn-1-yl]- (CA INDEX



PAGE 1-B

- RN 852459-87-1 CAPLUS
- CN Benzene, 1-[4-methyl-3-[2-[4-[4-methyl-3-[2-[4-[2-[tris(1methylethyl)silyl]ethynyl]phenyl]ethynyl]-3-penten-1-yn-1vl]phenvl]ethvnvl]-3-penten-1-vn-1-vl]-4-[4-methvl-3-[2-[4-[2-[tris(1methylethyl)silyl]ethynyl]phenyl]ethynyl]-3-penten-1-yn-1-yl]- (CA INDEX

PAGE 1-B

REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 4 OF 11 CAPLUS COPYRIGHT 2009 ACS on SIN ACCESSION NUMBER: 2004:480115 CAPLUS Full-text

DOCUMENT NUMBER: 141:190674

TITLE: Synthesis of Conjugated Oligomers Having Aromatic and Enediyne Units Alternately in the Backbone that Show

Intense Fluorescence Emission

AUTHOR(S): Nakano, Yuuki; Ishizuka, Kenichi; Muraoka, Kenji;

Ohtani, Hiroyuki; Takayama, Yuuki; Sato, Fumie
CORPORATE SOURCE: Department of Biomolecular Engineering, Tokyo

Institute of Technology, Midori, Yokohama, Kanagawa, 226-8501, Japan

SOURCE: Organic Letters (2004), 6(14), 2373-2376

CODEN: ORLEF7; ISSN: 1523-7060 PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 141:190674

GT

$$(Me \circ CH) \circ Si = C = C - X -$$

- AB Synthesis and fluorescence properties of x-conjugated compds. I (n = 1 3; X = 1,4-phenylene, Z,5-pyridine, Z,5-thiophene; R = n-Pr, m-Bu) having alternately an aromatic or heteroarom. ring and an enediyme unit in the backbone are described.
- II 740810-61-1P 740810-60-0P 740810-64-49 740810-65-5P 140810-67-70 740810-68-8P

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and absorption and fluorescence spectra of conjugated oligomers $% \left\{ 1,2,\ldots,n\right\}$

having aromatic (or heteroarom.) and enedigne units alternately in the

backbone)

- RN 740810-61-1 CAPLUS
- CN 3-Butyn-2-ol, 2-methyl-4-[4-[(3E)-3-propyl-4-[2-[4-[2-[tris(1-methylethyl)silyl]ethynyl]phenyl]ethynyl]-3-hepten-1-yn-1-yl]phenyl]- (CA INDEX NAME)

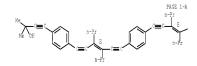
Double bond geometry as shown.

PAGE 1-B



- RN 740810-62-2 CAPLUS
- CN 3-Butyn-2-ol, 2-methyl-4-[4-[(3E)-3-propyl-4-[[4-[(3E)-3-propyl-4-[[4-[[tris(1-methylethyl)silyl]ethynyl]phenyl]ethynyl]-3-hepten-1-yn-1yl]phenyl]ethynyl]-3-hepten-1-yn-1-yl]phenyl]- (CA INDEX NAME)

Double bond geometry as shown.



PAGE 1-B

- RN 740810-64-4 CAPLUS
- CN 3-Butyn-2-o1, 4-[6-[(3E)-3-butyl-4-[2-[6-[2-[tris(1-methyl)silyl]ethynyl]-3-pyridinyl]ethynyl]-3-hepten-1-yn-1-yl]-3-pyridinyl]-2-methyl- (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-B



- RN 740810-65-5 CAPLUS
- CN 3-Butyn-2-ol, 4-[6-[(3E)-3-butyl-4-[2-[6-[(3E)-3-butyl-4-[2-[6-[(2E-tris(1-methylethyl)silyl)]-3-pyridinyl]-3-hepten-1-yn-1-yl]-3-pyridinyl]-2-hepten-1-yn-1-yl]-3-pyridinyl]-2-hepten-1-yn-1-yl]-3-pyridinyl]-2-hepten-1-yn-1-yl]-3-pyridinyl]-2-hepten-1-yn-1-yl]-3-pyridinyl]-2-hepten-1-yn-1-yl]-3-pyridinyl]-2-hepten-1-yn-1-yl]-3-pyridinyl]-2-hepten-1-yn-1-yl]-3-pyridinyl]-2-hepten-1-yn-1-yl]-3-pyridinyl]-2-hepten-1-yn-1-yl]-3-pyridinyl]-2-hepten-1-yn-1-yl]-3-pyridinyl]-2-hepten-1-yn-1-yl]-3-pyridinyl]-2-hepten-1-yn-1-yl]-3-pyridinyl]-2-hepten-1-yn-1-yl]-3-pyridinyl]-2-hepten-1-yn-1-yl]-3-pyridinyl]-2-hepten-1-yn-1-yl]-3-pyridinyl]-2-hepten-1-yn-1-yl]-3-hepten-1-yn-1-yl]-3-pyridinyl]-3-hepten-1-yn-1-yl]-3-pyridinyl]-3-hepten-1-yn-1-yl]-3-pyridinyl]-3-hepten-1-yn-1-yl]-3-pyridinyl]-3-hepten-1-yn-1-yl]-3-pyridinyl]-3-hepten-1-yn-1-yl]-3-pyridinyl]-3-hepten-1-yn-1-yl]-3-pyridinyl]-3-hepten-1-yn-1-yl]-3-pyridinyl]-3-hepten-1-yn-1-yl]-3-pyridinyl]-3-hepten-1-yn-1-yl]-3-pyridinyl]-3-hepten-1-yn-1-yl]-3-pyridinyl]-3-hepten-1-yn-1-yl]-3-pyridinyl]-3-hepten-1-yn-1-yl]-3-hepten-1-yn-1-yl]-3-pyridinyl]-3-hepten-1-yn-1-yl]-3-hepten-1-yl]-3-hepten-1-yl]-3-hepten-1-yl]-3-hepten-1-yl]-3-hepten-1-yl]-3-hepten-1-yl]-3-hep

Double bond geometry as shown.

PAGE 1-B

- RN 740810-67-7 CAPLUS
- CN 3-Butyn-2-ol, 2-methyl-4-[5-[(3E)-3-propyl-4-[(5-[[tris(1-methylethyl)silyl]ethynyl]-2-thienyl]ethynyl]-3-hepten-1-yn-1-yl]-2-thienyl]- (CA INDEX NAME)

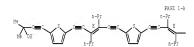
Double bond geometry as shown.

PAGE 1-B



- RN 740810-68-8 CAPLUS
- CN 3-Butyn-2-ol, 2-methyl-4-[5-((3E)-3-propyl-4-[5-((3E)-3-((3E)-3-propyl-4-[5-((3E)-3-propyl-4-[5-((3E)-3-propyl-4-[5-((3E)-3-((3E)

Double bond geometry as shown.



PAGE 1-B

IT 745835-83-3P 740810-66-6P 740810-69-98

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and absorption and fluorescence spectra of conjugated oligoners

having aromatic (or heteroarom.) and enedigne units alternately in the backbone)

RN 740810-63-3 CAPLUS

Double bond geometry as shown.

PAGE 1-C

- RN 740810-66-6 CAPLUS
- CN 3-Butyn-2-01, 4-[6-[138]-3-butyl-4-[2-[6-[138]-3-butyl-4-[2-[6-[38]-3-butyl-4-[2-[6-[2-[138]-3-butyl-4-[2-[6-[2-[138]-3-butyl-4-[2-[6-[2-[138]-3-butyl-4-[2-[6-[2-[2-]-3-butyl-3

Double bond geometry as shown.

PAGS 1-8

PAGS 1

PAGE 1-C

___Ne

- RN 740810-69-9 CAPLUS
- N 3-Butyn-2-0.1, 4-15-[13].4-1(2-5-[13])-5-ethyl-4-[2-[5-[13])-5-ethyl-3-propyl-4-[2-[5-[2-[tris (1-nethylethyl) siyly] ethyyl]-2-thienyl]ethyyl]-3-penten-1-yn-1-yl]-2-thienyl]ethyyl]-3-propyl-3-penten-1-yn-1-yl]-2-thienyl]ethyyl]-3-propyl-3-penten-1-yn-1-yl]-2-thienyl]-2-methyl-1 (CA INDEX MNE)

PAGE 1-C

__Ne

IT 740810-57-59 740910-59-79 740810-60-02

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

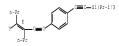
(preparation and absorption and fluorescence spectra of conjugated oligomers

having aromatic (or heteroarom.) and enedigne units alternately in the backbone)

RN 740810-57-5 CAPLUS

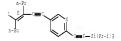
CN Benzene, 1-[(3E)-4-iodo-3-propyl-3-hepten-1-yn-1-y1]-4-[2-[tris(1-methylethyl)sily1]ethynyl]- (CA INDEX NAME)

Double bond geometry as shown.



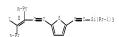
- RN 740810-59-7 CAPLUS
- CN Pyridine, 5-[(3E)-4-iodo-3-propyl-3-octen-1-yn-1-yl]-2-[2-[tris(1-methylethyl)silyl]ethynyl]- (CA INDEX NAME)

Double bond geometry as shown.



- RN 740810-60-0 CAPLUS
- CN Thiophene, 2-[(3E)-4-iodo-3-propyl-3-hepten-1-yn-1-yl]-5-[2-[tris(1-methylethyl)silyl]ethynyl]- (CA INDEX NAME)

Double bond geometry as shown.



OS.CITING REF COUNT: 20 THERE ARE 20 CAPLUS RECORDS THAT CITE THIS

RECORD (20 CITINGS)

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

14 ANSWER 5 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2003:491916 CAPLUS Full-text

DOCUMENT NUMBER: 139:395637

Synthesis of differentially protected/functionalised

acetylenic building blocks from p-benzoquinone and their use in the synthesis of new enediynes Sankararaman, Sethuraman; Srinivasan, Manivannan

CORPORATE SOURCE: Department of Chemistry, Indian Institute of Technology Madras, Madras, 600 036, India

SOURCE: Organic & Biomolecular Chemistry (2003), 1(13),

2388-2392

CODEN: OBCRAK; ISSN: 1477-0520
PUBLISHER: Royal Society of Chemistry

DOCUMENT TYPE: ROYAL SOCIECY

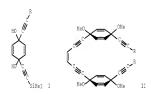
LANGUAGE: English

CTHER SOURCE(S): CASREACT 139:395637

GI

TITLE:

ATITHOR (S):



AB Sequential addition of two different lithium acetylides to p-benzoquinone yielded diastereomeric mixts, of 1,4-diethyw1-ycloheza-2,5-diene-1,4- diels I [R = (MeCR) 351, (Et)O2CR) with different protective/functional groups on the two ethynyl groups. Selective monodeprotection of the di-Me ethers of I to the corresponding terminal acetylenes followed by Pel(0)-mediated coupling with (Z)-1,2-dichloroethene yielded new enediynes II bearing cyclohexa-2,5-diene units.

IT 626235-00-99

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of cyclohexadienyl enediynes via double addition of functionalized $% \left(1\right) =\left(1\right) \left(1\right)$

lithium acetylides to benzoquinone, selective monodeprotection and coupling with dichloroetheme)

RN 626235-20-9 CAPLUS

CN Silane, [(3Z)-3-hexene-1,5-diyne-1,6-diylbis[(cis-1,4-dimethoxy-2,5-cyclohexadiene-1,4-diyl)-2,1-ethynediyl]]bis[tris(1-methylethyl)- (9CI)

Relative stereochemistry.
Double bond geometry as shown.

PAGE 1-A (i-Pr)3Si---C---C

PAGE 1-B

-Si(Pr-il3

6 THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD OS.CITING REF COUNT: (6 CITINGS)

REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2002:874017 CAPLUS Full-text

DOCUMENT NUMBER: 138:72938

TITLE: Diatropicity of

3, 4, 7, 8, 9, 10, 13, 14-Octadehydro [14] annulenes: A

Combined Experimental and Theoretical Investigation AUTHOR(S): Boydston, Andrew J.; Haley, Michael M.; Williams,

Richard Vaughan; Armantrout, John R.

CORPORATE SOURCE: Department of Chemistry, University of Oregon, Eugene,

OR, 97403-1253, USA

Journal of Organic Chemistry (2002), 67(25), 8812-8819 SOURCE:

CODEN: JOCEAH; ISSN: 0022-3263

PUBLISHER: American Chemical Society DOCUMENT TYPE: Journal

LANGUAGE: English

CASREACT 138:72938 OTHER SOURCE(S):

AB The synthesis and study of a series of octadehydro[14]annulenes is described. The aromaticity of these annulenes was investigated through examination of exptl. data from arene-fused systems as well as calculated nucleus-independent chemical shifts (NICS) and bond lengths. Benzene ring fusion to the parent system results in a stepwise loss in aromaticity as the number of fused rings is increased from one to two to three. This decrease in annulenic ring current is manifested in the alkene proton chemical shifts (0-2 benzenes) as well as the NICS (0-3 benzenes). Comparison of isomeric thiophene-fused annulenes shows further evidence of ring current competition as these allow for observation of intermittent degrees of delocalization throughout the annulenic core. A consistent relationship between the magnitude of the NICS values and the degree of benzannelation is also observed

IT 482234-13-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(cross-coupling; a combined exptl. and theor. investigation of diatropicity of 3,4,7,8,9,10,13,14-octadehydro[14]annulenes)

RN 482294-19-9 CAPLUS

CN Benzene, 1-(3Z)-3-hexene-1,5-diyn-1-yl-2-[2-[tris(1-

methylethyl)silyl]ethynyl]- (CA INDEX NAME)

Double bond geometry as shown.

IT 381173-15-69

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(deprotection; a combined exptl. and theor. investigation of diatropicity of 3,4,7,8,9,10,13,14-octadehydro[14]annulenes)

RN 381173-15-5 CAPLUS

CN Benzene, 1-[(3Z,7Z)-10-(trimethylsilyl)-3,7-decadiene-1,5,9-triyn-1-yl]-2-[2-[tris(1-methylethyl)silyl]ethynyl]- (CA INDEX NAME)

Double bond geometry as shown.

IT 380170-15-3P

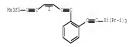
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(deprotection; a combined exptl. and theor. investigation of diatropicity of 3,4,7,8,9,10,13,14-octadehydro[14]annulenes)

RN 381173-13-3 CAPLUS

CN Benzene, 1-[(32)-6-(trimethylsilyl)-3-hexene-1,5-diyn-1-yl]-2-[2-[tris(1methylethyl)silyl]ethynyl]- (CA INDEX NAME)

Double bond geometry as shown.



OS.CITING REF COUNT:

31 THERE ARE 31 CAPLUS RECORDS THAT CITE THIS

RECORD (33 CITINGS)

REFERENCE COUNT:

44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

14 ANSWER 7 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2001:731976 CAPLUS Full-text

DOCUMENT NUMBER: 136:53492

Diatropicity of Dehydrobenzo[14]annulenes: Comparative

Analysis of the Bond-Fixing Ability of Benzene on the Parent 3,4,7,8,9,10,13,14-Octadehydro[14]annulene

AUTHOR(S): Boydston, A. J.; Haley, Michael M.

Department of Chemistry, University of Oregon, Eugene, CORPORATE SOURCE:

OR, 97403-1253, USA

Organic Letters (2001), 3(22), 3599-3601 SOTRCE:

CODEN: ORLEF7; ISSN: 1523-7060

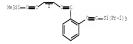
PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 136:53492

- AB We report the synthesis of 3,4,7,8,9,10,13,14-octadehydro[14]annulene and detail a comparative aromaticity study with its benzannelated derivs. (e.g., benzo[e]-3,4,7,8,9,10,13,14-octadehydro[14]annulene and dibenzo[a,e]-3, 4, 7, 8, 9, 10, 13, 14-octadehydro[14]annulene).
- IT 381173-13-39 381175-15-5P
 - RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (intermediate; diatropicity of dehydrobenzoannulenes)
- RN 381173-13-3 CAPLUS
- CN Benzene, 1-[(3Z)-6-(trimethylsilyl)-3-hexene-1,5-diyn-1-yl]-2-[2-[tris(1methylethyl)silyl]ethynyl]- (CA INDEX NAME)

Double bond geometry as shown.



- RN 381173-15-5 CAPLUS
- CN Benzene, 1-[(3Z,7Z)-10-(trimethylsilyl)-3,7-decadiene-1,5,9-triyn-1-yl]-2-[2-[tris(1-methylethyl)silyl]ethynyl]- (CA INDEX NAME)

Double bond geometry as shown.



19 THERE ARE 19 CAPLUS RECORDS THAT CITE THIS OS CITING REF COUNT:

RECORD (19 CITINGS)

REFERENCE COUNT: THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 8 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN 2001:714296 CAPLUS Full-text ACCESSION NUMBER:

DOCUMENT NUMBER: 136:69640 TITLE: Synthesis and spectroscopic studies of expanded planar dehydrotribenzo[n]annulenes containing one or two

isolated alkene units

Wan, W. Brad; Chiechi, Ryan C.; Weakley, Timothy J. ATITHOR (S1: R.; Haley, Michael M.

CORPORATE SOURCE: Department of Chemistry and the Materials Science

Institute, University of Oregon, Eugene, OR, 97403-1253, USA

SOURCE: European Journal of Organic Chemistry (2001), (18),

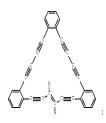
3485-3490

CODEN: EJOCFK; ISSN: 1434-193X

PUBLISHER: Wiley-VCH Verlag GmbH

DOCUMENT TYPE: Journal English LANGHAGE +

OTHER SOURCE(S): CASREACT 136:69640



- AB Dehydrobenzoannulene derivs. containing isolated alkene linkages, e.g., I, were synthesized by combining an in situ Pd/Cu-mediated cross-coupling with an intramol. cyclization strategy. 1H MMR studies of these macrocycles and comparison with related systems verify that highly alkynylated dehydrobenzoannulenes possess weak induced ring currents, indicative of aromatic (4n+2 π systems) and antiarom. (4n π systems) behavior, in spite of their large size and extensive benzannulation.
- IT 214628-16-79 214628-17-8P 214628-18-9P 191010-39-60

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and spectroscopic studies of expanded planar dehydrotribenzo[n]annulenes containing one or two isolated alkene units)

RN 214628-16-7 CAPLUS

CN Benzene, 1-[(3E)-6-(trimethylsilyl)-3-hexene-1,5-diyn-1-yl]-2-[2-[tris(1methylethyl)silvl]ethynyl]- (CA INDEX NAME)

RN 214628-17-8 CAPLUS

CN Silane, tris(1-methylethyl)[[2-[(3E)-6-[2-[4-[2-[[tris(1methylethyl)silyl]ethynyl]phenyl]-1,3-butadiynyl]phenyl]-3-hexene-1,5diynyl]phenyl]ethynyl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-B

RN 214628-18-9 CAPLUS

 ${\tt CN \quad Silane, \; tris\, (1-methylethyl)\, [[2-[6-[2-[(3E)-6-[2-[[tris\, (1-1)]]]]])]}$ methylethyl)silyl]ethynyl]phenyl]-3-hexene-1,5-diynyl]phenyl]-1,3,5hexatriynyl]phenyl]ethynyl]- (9CI) (CA INDEX NAME)

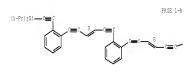
Double bond geometry as shown.

-Si(Pr-i)3

RN 383404-38-4 CAPLUS

CN Silane, [1,2-phenylenebis[(3E)-3-hexene-1,5-diyne-6,1-diyl-2,1-phenylene-2,1-ethynediyl]]bis[tris(1-methylethyl)- (9CI) (CA INDEX NAME)

Couble bond geometry as shown.



PAGE 1-B



10 THERE ARE 10 CAPLUS RECORDS THAT CITE THIS OS.CITING REF COUNT:

RECORD (10 CITINGS)

REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

14 ANSWER 9 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN 2000:832492 CAPLUS <u>Full-text</u> ACCESSION NUMBER:

DOCUMENT NUMBER: 134:310920

Bis(enediyne) Macrocycles: Synthesis, Reactivity, and TITLE:

Structural Analysis Blanchette, H. S.; Brand, S. C.; Naruse, H.; Weakley, AUTHOR(S):

T. J. R.; Haley, M. M. CORPORATE SOURCE: Department of Chemistry, University of Oregon, Eugene,

OR, 97403-1253, USA

SOURCE: Tetrahedron (2000), 56(49), 9581-9588

CODEN: TETRAB: ISSN: 0040-4020

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 134:310920

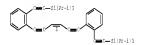
- AB The authors describe the syntheses of five macrocycles possessing two enediyrs warheads, along with the structural and thermal analyses of these bis(enediyne) compds. The solid-state packing of one of the compds. suggests the possibility for the mol. to undergo a topochem. diacetylene polymerization 13 33318-20-EP
- RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of bis(enedigne) macrocycles)

RN 335378-20-6 CAPLUS

CN Silane, [(32)-3-hexene-1,5-diyne-1,6-diylbis(2,1-phenylene-2,1-ethynediyl)]bis[tris(1-methylethyl)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



OS.CITING REF COUNT: 19 THERE ARE 19 CAPLUS RECORDS THAT CITE THIS

RECORD (20 CITINGS)

REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS
RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 10 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1998:606810 CAPLUS Full-text

DOCUMENT NUMBER: 129:302407

ORIGINAL REFERENCE NO.: 129:61683a,61686a

TITLE: Synthesis of expanded planar dehydrobenzoannulenes: weakly diatropic, weakly paratropic, or atropic?

AUTHOR(S): Wan, W. Brad; Kimball, David B.; Haley, Michael M.
CORPORATE SOURCE: Department of Chemistry, University of Oregon, Oregon,

97403-1253, USA

SCURCE: Tetrahedron Letters (1998), 39(38), 6795-6798

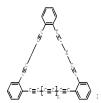
CODEN: TELEAY; ISSN: 0040-4039

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 129:302407

OTHER BO



- AB Use of a Ou/Pd cross-coupling stratesy has led to the synthesis of the first dehydroberzoarmienes I [X = C.tpibond.C, (B)-CR:CR; n = 0,1] containing triacetylenic liniages. NMR studies of these macrocycles and comparison with other known systems indicate that, in spite of their large size and extensive benzamnelston, dehydroberzoarmilenes posses weak finiced ring current.
- II 216026-16-79 219529-17-80 219608-18-99
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (representation of reached planar debutyphographylapse with triangularic
 (representation of reached planar debutyphographylapse with triangularic)

(preparation of expanded planar dehydrobenzannulenes with triacetylenic linkages)

RN 214628-16-7 CAPLUS

CN Benzene, 1-[(3E)-6-(trimethylsilyl)-3-hexene-1,5-diyn-1-yl]-2-[2-[tris(1-methylethyl)silyl]ethynyl]- (CA INDEX NAME)

Double bond geometry as shown.

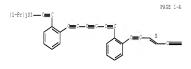
- RN 214628-17-8 CAPLUS
- CN Silane, tris(1-methylethyl)[[2-[(3E)-6-[2-[4-[2-[[tris(1-methylethyl)silyl]ethynyl]phenyl]-1,3-butadiynyl]phenyl]-3-hexene-1,5-diynyl]phenyl]-(9CI) [CA INDEX NAME]



RN 214628-18-9 CAPLUS

CN Silane, tris(1-methylethyl)[[2-(6-[2-[(3E)-6-[2-[[tris(1-methylethyl)silyl]ethynyl]phenyl]-3-hexene-1,5-diynyl]phenyl]-1,3,5-hexatriynyl]phenyl]ethynyl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



PAGE 1-B



OS.CITING REF COUNT: 25 THERE ARE 25 CAPLUS RECORDS THAT CITE THIS

RECORD (26 CITINGS)

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 11 CF 11 CAPIUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1971:474343 CAPIUS Full-text OCCUMENT NUMBER: 127:161614 CRIGINAL REFERENCE NO.: 127:31327a, 31330a

TITLE: A new approach to a dynemicin A analog by using an

intramolecular Diels-Alder reaction

AUTHOR(S): Sakamoto, Yasuharu; Takahashi, Takashi

CCRPORATE SCURCE: Dep. Chem. Eng., Tokyo Inst. Technol., Tokyo, 152,

Japan SOURCE: Synlett

Synlett (1995), (Spec. Issue), 513-515

CODEN: SYNLES; ISSN: 0936-5214

PUBLISHER: Thieme
DOCUMENT TYPE: Journal
LANGUAGE: English

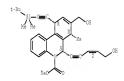
OTHER SOURCE(S): CASREACT 127:161614

- AB New synthetic approach to the dynemicin skeleton by using an intramol. Diels-Alder reaction and its diastereoselectivity based on an "MMZ transition-state model." are described.
- TT 193689-00-5P
 - RL: SPN (Synthetic preparation); PREP (Preparation) (synthesis of a dynemicin A analog by using an intramol. Diels-Alder reaction)
- RN 193688-00-5 CAPLUS
- CN 5(6H)-Phenanthridinecarboxylic acid,

10-[2-([1,1-dimethylethyl)dimethylsilyl]ethynyl]-7,10-dihydro-8-(hydroxymethyl)-6-[[3%]-5-hydroxy-3-penten-1-yn-1-yl]-7-methyl-, methyl ester, [6%,7%,10%]-rel- (CA INDEX NAME)

Relative stereochemistry.

Double bond geometry as shown.



CS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD

(4 CITINGS)

REFERENCE COUNT: 55 THERE ARE 55 CITED REFERENCES AVAILABLE FOR THIS

RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

FILE 'HOME' ENTERED AT 12:54:04 ON 18 DEC 2009

=> file registry

=> Uploading C:\Program Files\STNEXP\Queries\10591950-claim 1-v 4.str



chain nodes : 1 2 3 4 5 6 7 9 ahain banda . 1-2 1-9 2-3 3-4 4-5 5-6 6-7 exact/norm bonds : 1-9 4-5 5-6 exact bonds : 1-2 2-3 3-4 6-7

Gl:Cb,Cv,Hv

Match level :

1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 9:CLASS

STRUCTURE UPLOADED

=> s 11 sss sam

SAMPLE SEARCH INITIATED 12:55:09 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED - 623 TO ITERATE

100.0% PROCESSED 623 ITERATIONS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

2 ANSWERS

10963 TO 13957 PROJECTED ITERATIONS: PROJECTED ANSWERS:

2 SEA SSS SAM L1

=> s ll sss full

FULL SEARCH INITIATED 12:55:14 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 11729 TO ITERATE

100.0% PROCESSED 11729 ITERATIONS 53 ANSWERS

SEARCH TIME: 00.00.01

53 SEA SSS FIII. L1

=> file caplus

=> s 13 20 L3

=> d ibib abs hitstr 1-

YOU HAVE REQUESTED DATA FROM 20 ANSWERS - CONTINUE? Y/(N):v

L4 ANSWER 1 OF 20 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2009:76616 CAPLUS Full-text

DOCUMENT NUMBER: 150:167710

TITLE: Push-pull hyperbranched molecules. A theoretical study AUTHOR(S):

Ramos, Estrella; Guadarrama, Patricia; Teran, Gerardo;

Fomine, Serguei

CORPORATE SOURCE: Instituto de Investigaciones en Materiales,

Universidad Nacional Autonoma de Mexico, Mexico,

04510, Mex.

SOURCE: Journal of Physical Organic Chemistry (2009), 22(1),

CODEN: JPOCEE: ISSN: 0894-3230

PUBLISHER: John Wiley & Sons Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The electronic properties of the ground state, unrelaxed and relaxed first excited states of push-pull hyperbranched mols, bearing amino and nitro terminal groups have been studied at BB1K/cc-pvdz//HF/6-31g(d), TD-BB1K/ccpwdz//HF/6-31g(d) and TD-BB1K/cc-pwdz//CIS/6-31g(d) levels of theory, resp. It was demonstrated that dendritic architecture of push-pull mols. favors the charge transfer in the excited state compared to linear mols. The possibility of adopting a plane conformation is an important condition for the charge transfer in an excited state. According to the calons, 1:1 ratio of donor and acceptor groups is another important precondition for the manifestation of strong charge separation in the excited state. In case of excess of nitro groups over the amino, some of the excitations participating in the $SO \rightarrow SI$ transition favor the charge transfer in the excited state in the opposite directions, thus decreasing the charge separation

IT 1107616-71-6 1197616-72-7 1107616-73-8

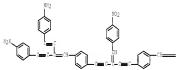
RL: PRP (Properties)

(electronic properties of ground state, unrelaxed and relaxed first excited states of push-pull hyperbranched mols, bearing amino and nitro terminal groups)

RN 1107616-71-6 CAPLUS

CN Benzenamine, 4,4"-[3-[[4-[5-[4-[4-(4-aminophenyl])-2-[2-(4aminophenyl)ethynyl]-1-buten-3-yn-1-yl]phenyl]-3-[(4nitrophenyl)methylene]-1,4-pentadiyn-1-yl]phenyl]methylene]-1,4-pentadiyne-1,5-divl]bis- (CA INDEX NAME)

PAGE 1-A



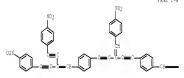
PAGE 1-B



RN 1107616-72-7 CAPLUS

PAGE 1-B

- RN 1107616-73-8 CAPLUS
- CN Benzenamine, 4-[4-[4-[4-(4-nitrophenyl)-2-[2-(4-nitrophenyl)]ethynyl]-1-buter-3-yn-1-yl]phenyl]-2-[2-[4-[4-(4-nitrophenyl]-2-[2-(4-nitrophenyl)]-1-buten-3-yn-1-yl]phenyl]ethynyl]-1-buten-3-yn-1-yl]phenyl]ethynyl]-1-buten-3-yn-1-yl]-CA_DDEX_NAME]



PAGE 1-B

IT 1107616-36-8

RL: PRP (Properties)

(linear analog; electronic properties of ground state, unrelaxed and relaxed first excited states of push-pull hyperbranched mols. bearing amino and nitro terminal groups)

- RN 1107616-76-1 CAPLUS
- CN Benzenamine, 4-[4-[4-[4-[4-[4-[4-[4-(4-nitrophenyl)-1-buten-3-yn-1-yl]phenyl]-1-buten-3-yn-1-yl]phenyl]-3-buten-1-yn-1-yl]phenyl]-3-buten-1-yn-1-yl]- (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 20 CAPLUS COPYRIGHT 2009 ACS on STN 2008:355050 CAPLUS Full-text ACCESSION NUMBER.

DOCUMENT NUMBER: 148:520471

CORPORATE SOURCE:

TITLE: Tetrafullerene Conjugates for All-Organic

Photovoltaics

AUTHOR(S): Fernandez, Gustavo; Sanchez, Luis; Veldman, Dirk;

Wienk, Martijn M.; Atienza, Carmen; Guldi, Dirk M.;

Janssen, Rene A. J.; Martin, Nazario

Departamento de Quimica Organica, Facultad de Ciencias Quimicas, Universidad Complutense de Madrid, Madrid,

28040, Spain

SOURCE: Journal of Organic Chemistry (2008), 73(8), 3189-3196

CODEN: JOCEAH: ISSN: 0022-3263 PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 148:520471

AB The synthesis of two new tetrafullerene nanoconjugates in which four C60 units are covalently connected through different m-conjugated oligomers (oligo(pphenylene ethynylene) and oligo(p-phenylene vinylene)) is described. The photovoltaic response of these C60-based conjugates was evaluated by using them as the only active material in organic solar cells, showing a low photovoltaic performance. Photophys. studies in solution demonstrated a very fast (.apprx.10 ps) deactivation of the singlet excited state of the central core unit to produce both charge-separated species (i.e., C60 -- oligomer+ --(C60)3 and C60 centered singlet excited states). The charge-separated state recombines partly to the C60 centered singlet state that undergoes subsequent intersystem crossing. Photophys. studies carried out in films support these data, exhibiting long-lived triplet excited states. For both tetrafullerene arrays, the low yield of long-lived charge carriers in thin films accounts for the limited photovoltaic response. On the contrary, utilizing the oligo(pphenylene vinylene) centered precursor aldehyde as an electron donor and antennae unit and mixing with the well-known C60 derivative PCBM, the photophys. studies in films show the formation of long-lived charges. The photovoltaic devices constructed from these mixts, showed a relatively high photocurrent of 2 mA/cm2. The sharp contrast between the nanoconjugates and the phys. blends tentatively was attributed to improved charge dissociation and the collection of more favorable energy levels in the blends as a result of partial aggregation of both of the components.

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(in synthesis of tetrafullerene conjugates for all-organic photovoltaics)

RN 1022991-37-2 CAPLUS

2-Thiophenecarboxaldehyde, 5,5'-[[2,5-bis(hexyloxy)-1,4-phenylene]bis[2,1ethynediyl-4,1-phenylene[3-[2-(5-formyl-2-thienyl)ethynyl]-3-buten-1-yne-4,1-diyl]]]bis- (CA INDEX NAME)

PAGE 1-B

THERE ARE 10 CAPLUS RECORDS THAT CITE THIS OS.CITING REF COUNT:

RECORD (10 CITINGS)

THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT:

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

14 ANSWER 3 OF 20 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2008:244421 CAPLUS Full-text

DOCUMENT NUMBER: 148:403337

TITLE: Triphenvlphosphine Incorporation Reactions of Divnvl

Complexes Containing a TpRu(NO) Fragment and Isomerization to Ruthenacyclobuta[b]naphthalene

AUTHOR(S): Arikawa, Yasuhiro; Asayama, Taiki; Tanaka, Chie; Tashita, Shin-ya; Tsuji, Misako; Ikeda, Kenta;

Umakoshi, Keisuke; Onishi, Masayoshi

CORPORATE SOURCE:

Department of Applied Chemistry, Faculty of Engineering, Nagasaki University, Nagasaki, 852-8521,

Japan

Organometallics (2008), 27(6), 1227-1233 SOURCE:

CODEN: ORGND7: ISSN: 0276-7333

American Chemical Society DIET.TOURD.

DOCUMENT TYPE: Journal

LANGHAGE . English OTHER SOURCE(S): CASREACT 148:403337

AB Nitrosylruthenium arylbutadiynyl complexes having a Tp ligand (Tp = BH(pyrazol-1-yl)3) were prepared, and their reactivities toward PPh3 incorporation in the presence of HBF4-Et20 were described. The PPh3 incorporation of mono(arylbutadiynyl) complex TpRuCl(C.tplbond.C-C.tplbond.C-C6H4Me)(NO) (1) resulted in the \$-phosphonicalkenyl complex (E)-

[TpRuCl(CH:C(PPh3)-C.tplbond.C-C6H4Me)(ND)]EF4 (2-BF4), whereas when his (ary)Instadiymyll TpRu(C.tplbond.C-CftBMe)2(ND) (3) was treated, mono- and his [#-hospshonioalkeryl] complexes (B-[TpRu(C.tplbond.C-C6H4Me)2(ND)]EF4 (4-BF4) and (E,B)-[TpRu(CR:C[PPh3)-C.tplbond.C-C6H4Me)(ND)]EF4 (4-BF4) and (E,B)-[TpRu(CR:C[PPh3)-C.tplbond.C-C6H4Me)(ND)]EF4 (4-BF4) are obtained depending on the reaction conditions. On the other hand, an unsymmixed (ary)Instadiynyl) (3-hydroxyalkynyl) complex, TpRu(C.tplbond.C-C.tplbond.C-C5H4Me)(CDB)(ND) (6), was allowed to react with PPh3 in the presence of the protic acid to give the @-phosphonioallenyl [TpRu(C.tplbond.C-C.tplbond.C-C6H4Me)(CDB3)(ND)[EF4 (7-EF4).

Interestingly, thermal isomerization of 7-EF4 to a ruthera-2-PPh3-cyclobuta(p)maphthaleen [TpRu(CE(PPh3)]-2-Ph-8-[MeC6H4-C.tplbond.C-C10H4])(ND)[EF4 (8-BF4) was observed

T 1015477-07-69

RL: SPN (Synthetic preparation); PREP [Preparation) (tribbenylphosphine incorporation reactions of diynyl complexes containing pyrazolylboratoruthenium nitrosyl fragment and isomerization to ruthenaveclobutanaphthalene)

- RN 1015477-27-6 CAPLUS
- CN Ruthenium(1+), [hydrotris(18-pyrazolato-xXII)borato(1-)-XXIZ,XXIZ',XXIZ'][4-(4-methylphenyl)-1,3-butadiyn-1yl][(18)-4-(4-methylphenyl)-2-(triphenylphosphonio)-buten-3-yn-1ylinitrosyl-, IOC-6-24/-, tetrafiluoroborate(1-) (1:1) ICA INDEX IAME)

CM 1

- CRN 1015477-26-5
- CMF C49 H40 B N7 O P Ru
- CCI CCS

CM 2

CRN 14874-70-5

CMF B F4

CCI CCS

-F- 3+ F-

OS.CITING REF COUNT: 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD

REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS
RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

14 ANSWER 4 OF 20 CAPLUS COPYRIGHT 2009 ACS on STM ACCESSION NUMBER: 2007:1105260 CAPLUS Full-text

DOCUMENT NUMBER: 148:11306

AUTHOR(S):

TITLE: Formation and Structural and Dynamic Features of

Atropisomeric q2-Iminoacyl Zirconium Complexes Spies, Patrick; Kehr, Gerald; Kehr, Seda; Froehlich,

Roland: Erker, Gerhard

CORPORATE SOURCE: Organisch-Chemisches Institut, Universitaet Muenster,

Muenster, 48149, Germany

SOURCE: Organometallics (2007), 26(23), 5612-5620

CODEN: ORGND7; ISSN: 0276-7333
PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 148:11306

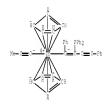
AB The CpZZCl(CPh:(PXZ)C.tplbond.CPh] complexes 7a (X = Ph) and 10 (X = CSF5) insert tert-butylisonitrile into the Zr-C(spZ) of bond to yield the iminoacyl zirooncome complexes, OpZCr(C[c)MNOSC)Phch (PXZ)C.tplbord.CPh 13a and 13b. X-ray crystal structure anal. of complexes 13a and 13b revealed a chiral atropisomeric structure with a torsion angle of 74.8(2)° (13a) and 72.9(6)° (13b), resp., around the central iminoacyl/alkenyl (1spZ)-C(spZ) obond. In solution an analogous chiral structure is observed The barrier of interconversion of the emantiomeric atropisomers of 13a and 13b was determined at &6.thermod. (327K) = 14.9 ± 0.1 & and lol -1 (13a) and 46.thermod. (325K) = 14.8 ± 0.3 kcal mol-1 (13b) by terperature-dependent dynamic NMR spectroscopy. Reaction of 7a and 10 with methyllithium followed by treatment with B(CSF3)3 gave the corresponding cathodic zirconceae complexes.

Cp2z+(HEF)[CPhC[PX2]C.tplbond.CPh] [MeB-(C6F5)3] 12a and 12b. These complexes took up 2 mol equiv of tert-butylisonitrile to yield the cationic N-inside n2-ininoacyl zirconocene systems 14a and 14b as isonitrile adducts. The cationic complexes 14a and 14b are also axially chiral. The barriers of enantinomerization (Ab.thermod. (268 K) = 13.1 ± 0.3 kcal mol-1 (14a), Ab.thermod. (293 K) = 13.4 ± 0.3 kcal mol-1 (14b)) were also determined by dymanic NUR spectroscopy.

IT 988638-66-0P

RL: PRP (Properties); SPM (Synthetic preparation); PREP (Preparation) (crystal structure; isonitrile insertion reaction into neutral and cationic butenynylzirconocene complexes to give atropisomeric ininoacyl zirconocene complexes)

- RN 958635-66-0 CAPLUS
- CN Zirconium, bis(n5-2,4-cyclopentadien-1-yl)[(1E)-2-(diphenylphosphino)-1,4-diphenyl-1-buten-3-yn-1-yl]-1-propyn-1-yl- (CA INDEX NAME)



OS CITING REF COUNT: THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD

(1 CITINGS)

THERE ARE 60 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT:

RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 5 OF 20 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2007:995140 CAPLUS Full-text

DOCUMENT NUMBER: 147:448227

TITLE: Convenient synthesis of (1-propynyl)arenes through a

one-pot double elimination reaction, and their

conversion to enymes

AUTHOR(S): An, De-Lie; Zhang, Zhiyang; Orita, Akihiro; Mineyama,

Hidetaka; Otera, Junzo

CORPORATE SOURCE: Department of Chemistry, College of Chemistry and

Chemical Engineering, Hunan University, Changsha,

410082, Peop. Rep. China

SOURCE: Synlett (2007), (12), 1909-1912

CODEN: SYNLES: ISSN: 0936-5214

PUBLISHER: Georg Thieme Verlag DOCUMENT TYPE: Journal

LANGUAGE: English

CASREACT 147:448227

AB A series of prop-1-ynyl arenes were prepared by one-pot double elimination reaction of EtSO2Ph, aromatic aldehyde, and C1PO(OEt)2 in THF with a base such as BuLi and tBuOK. A propargyllithium, which was prepared by treatment of propyn-1-yl arene with BuLi in the presence of 1,3-dimethyl-3,4,5,6tetrahydro-2(1H)-pyrimidinone (DMPU), reacted with aromatic aldehyde, C1PO(OEt)2 and t-BuOK to afford 4-arylbut-3-en-1-ynyl arene.

Photoluminescence of the envnes thus prepared was recorded both in solution and in the solid state.

TT 951766-78-39

OTHER SOURCE(S):

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of propynyl arenes through one-pot double elimination and conversion to envnes)

RN 951766-78-2 CAPLUS

CN Benzene, 1,1'-(1E)-1-buten-3-yne-1,4-diylbis[4-(2-phenylethynyl)- (CA THIREY NAME)

Double bond geometry as shown.

THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD OS.CITING REF COUNT:

(2 CITINGS)

REFERENCE COUNT: THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 20 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2006:82014 CAPLUS Full-text

DOCUMENT NUMBER: 144:334159

Light harvesting tetrafullerene nanoarray for organic TITLE

solar cells AUTHOR(S):

Atienza, Carmen M.; Fernandez, Gustavo; Sanchez, Luis; Martin, Nazario; Dantas, Ines Sa; Wienk, Martijn M.; Janssen, Rene A. J.; Rahman, G. M. Aminur; Guldi, Dirk

CORPORATE SOURCE: Departamento de Ouimica Organica, Facultad de Ciencias Quimicas, Universidad Complutense, Madrid, E-28040,

Spain

SOURCE: Chemical Communications (Cambridge, United Kingdom)

(2006), (5), 514-516

CODEN: CHCOFS; ISSN: 1359-7345

Royal Society of Chemistry PUBLISHER:

DOCUMENT TYPE: Journal LANCHACE. English

OTERS SOURCE(S): CASREACT 144:334159

AB A light absorbing π -conjugated oligomer-tetrafullerene nanoarray was synthesized and its photophys, study reveals an intramol, energy transfer, A photovoltaic device fabricated from this nanoarray and poly(3-hexylthiophene)

shows an external quantum efficiency of 15% at 500 nm. IT 880486-74-80

RL: PEP (Physical, engineering or chemical process); PRP (Properties); PUR (Purification or recovery); PYP (Physical process); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); RACT (Reactant or reagent)

(compound 4; light harvesting tetrafullerene nanoarray for organic solar (allen

RN 880486-74-8 CAPLUS

CN Benzaldehyde, 4,4'-[[2,5-bis(hexyloxy)-1,4-phenylene]bis[2,1-ethynediyl-4,1-phenylene[3-[(4-formylphenyl)ethynyl]-3-buten-1-yne-4,1-diyl]]]bis-(9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B



OS.CITING REF COUNT:

THERE ARE 16 CAPLUS RECORDS THAT CITE THIS

RECORD (16 CITINGS)

REFERENCE COUNT:

INVENTOR(S):

THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 7 OF 20 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2005:1004691 CAPLUS Full-text

DOCUMENT NUMBER: 143:306181

TITLE:

Process for preparation of π-conjugated aromatic

ring-containing acetylene derivatives as organic

electroluminescent devices Sato, Fumie; Takayama, Yuuki

PATENT ASSIGNEE(S): Nissan Chemical Industries, Ltd., Japan

SOURCE: PCT Int. Appl., 82 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE:

Japanese FAMILY ACC, NUM, COUNT: 1

PATENT INFORMATION:

| PA | TENT | NO. | | | KIND DATE | | | | APPL | ICAT | DATE | | | | | | | | |
|----|---------------|-----|-----|----------|-----------|-----|------|------|------|----------|------|----------------|--------------------|-----|----------|--------------------|-----|--|--|
| | | | | | | | | | | | | | | | | | | | |
| WO | WO 2005085176 | | | | | | 2005 | 0915 | | WO 2 | 005- | 20050308 | | | | | | | |
| | W: | AE, | AG, | AL_{t} | AM, | ΑT, | AU, | AZ, | BA, | BB_{r} | BG, | ${\tt BR}_{r}$ | ${\tt BW}_{\rm r}$ | ΒY, | BZ_{r} | ${\rm CA}_{\rm r}$ | CH, | | |
| | | CN, | 00, | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EC, | EE, | EG, | ES, | FI_{I} | GB, | GD, | | |
| | | GΕ, | GH, | GM, | HR, | ΗU, | ID, | IL, | IN, | IS, | JP, | ΚE, | KG, | K₽, | KR, | KΖ, | LC, | | |
| | | LK, | LR, | LS, | LT, | LU, | LV, | MA, | MD, | MG, | MK, | MN, | MW, | MX, | ΜZ, | ΝA, | NI, | | |

NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 20070176164 A1 20070802 US 2007-591950 JP 2004-65446 A 20040309 PRIORITY APPLN. INFO.: WO 2005-JP3950 W 20050308

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT OTHER SOURCE(S): MARPAT 143:306181

- AB This invention pertains to a method for producing x-conjugated aromatic ringcontaining acetylene derivs. via coupling reaction in the presence of palladium and Cu(I) catalysts. For example, the compound I was prepared in a multi-step synthesis in good yield. The title compds. are useful as electroluminescent devices.
- IT 864684-11-7P 864684-12-8P 804684-13-99 864684-15-10 864684-16-40 864684-13-50 RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (intermediate; preparation of $\pi\text{--conjugated}$ aromatic ring-containing

acetylene derivs. as organic electroluminescent devices)

- RN 864684-11-7 CAPLUS
- CN Pyridine, 2-[(1E)-4-(6-hexyl-3-pyridinyl)-1-buten-3-yn-1-yl]-5-[2-(trimethylsily1)ethyny1]- (CA INDEX NAME)

Double bond geometry as shown.

- RN 864684-12-8 CAPLUS
- CN Pyridine, 5-ethynyl-2-[(1E)-4-(6-hexyl-3-pyridinyl)-1-buten-3-yn-1-yl]-(CA INDEX NAME)

- RN 864684-13-9 CAPLUS
- CN Pyridine, 2-[(1E)-4-[6-hexyl-3-pyridinyl)-1-buten-3-yn-1-yl]-5-[(3E)-4-[5-[2-(trimethylsilyl)ethynyl)-2-pyridinyl]-3-buten-1-yn-1-yl]- (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-B

~0<u>—</u>C—SiMe3

- RN 864684-15-1 CAPLUS
- CN Pyridine, 5-ethynyl-2-[(1E)-4-[6-[(1E)-4-(6-hexyl-3-pyridinyl)-1-buten-3-yn-1-yl]-3-pyridinyl]-1-buten-3-yn-1-yl]- (CA INDEX NAME)

Double bond geometry as shown.

- (CH2) 5 Ne

- RN 864684-18-4 CAPLUS
- CN Pyridine, 2-[(1E)-4-(3-pyridiny1)-1-buten-3-yn-1-y1]-5-[2-(trimethylsily1)ethyny1]- (CA INDEX NAME)

Double bond geometry as shown.

- RN 864684-19-5 CAPLUS
- CN Pyridine, 5-ethynyl-2-[(1E)-4-(3-pyridinyl)-1-buten-3-yn-1-yl]- (CA INDEX NAME)

Double bond geometry as shown.

- IT ECGLEC.15.27 361636:17-38 864684-70-88
 RL: DEV [Device component use]; INF [Industrial manufacture]; SPN
 (Synthetic preparation); IEM (Technical or engineered material use); PREP
 (Preparation); USES (Uses)
- (preparation of $\pi\text{-conjugated}$ aromatic ring-containing acetylene derivs. as organic
 - electroluminescent devices)
- RN 864684-16-2 CAPLUS
- CN Pyridine, 2-[(1E)-4-[6-[(1E)-4-[6-[(1E)-4-(6-hexyl-3-pyridinyl)-1-buten-3-yn-1-yl]-3-pyridinyl]-1-buten-3-yn-1-yl]-3-pyridinyl]-1-buten-3-yn-1-yl]-5-[2-(trimethylsilyl)ethynyl]- (CA INDEX NAME)

PAGE 1-A

- RN 864684-17-3 CAPLUS
- CN 3-Pyridinecarbonitrile, 6-[2-[6-[(1E)-4-(6-hexyl-3-pyridinyl)-1-buten-3-yn-1-yl]-3-pyridinyl]ethynyl]- (CA INDEX NAME)

Double bond geometry as shown.

- RN 864684-20-8 CAPLUS
- CN Pyridine, 5-[2-(5-propoxy-2-pyridinyl)ethynyl]-2-[(1E)-4-(3-pyridinyl)-1-buten-3-yn-1-yl]- (CA INDEX NAME)

Double bond geometry as shown.

REFERENCE COUNT:

THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 8 OF 20 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2004:832644 CAPLUS Full-text
DOCUMENT NUMBER: 142:38113

TITLE: Site-Selective Monotitanation of Dialkynylpyridines

and Its Application for Preparation of Highly

Fluorescent m-Conjugated Oligomers

AUTHOR(S): Takayama, Yuuki; Hanazawa, Takeshi; Andou, Tomohiro; Muraoka, Kenji; Ohtani, Hiroyuki; Takahashi, Mizuki;

Sato, Fumie

CORPORATE SOURCE: Department of Biomolecular Engineering, Tokyo
Institute of Technology, Midori-ku, Yokohama,

Kanagawa, 226-8501, Japan

SOURCE: Organic Letters (2004), 6(23), 4253-4256

CODEN: ORLEF7; ISSN: 1523-7060

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English
OTHER SOURCE(S): CASREACT 142:38113

AB Reaction of Ti(0-i-Pr)4/2i-PrMgCl reagent with 2,n-

bis(trimethylsily)lethnywl]pyridines, where n is 3, 4, 5, and 6, or with 3,4-bis(trimethylsily)lethnywl]pyridines, proceeded with excellent site-selectivity to afford the corresponding monotitaated complex. Synthetic application of the reaction was demonstrated by an efficient preparation of x-onipurated oligomers having pyridine and expense units alternately, which possess intense blue fluorescence emission. Thus, reaction of 2,3-bis(trimethylsily)lethnywl]pyridine with Ti(0-1-ePt/21-PMgCl reagent in E2CO gave 845 (2)-2-2(-2 trimethylsily)lethnyl])-3-

[(trimethylsilyl)ethynyl]pyridine. II 805240-17-9P 805240-18-0P

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and site-selective monotitanation of dialkynylpyridines and

application for preparation of highly fluorescent pi-conjugated oligomers) RN 805240-17-9 CAPANIS

CN Pyridine, 2-[(1E)-4-[6-(1E)-1-tetradecen-3-yn-1-yl-3-pyridinyl]-1-buten-3yn-1-yl]-5-[2-(trimethylsilyl)ethynyl]- (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-B

—SiMe3

RN 805240-18-0 CAPLUS

CN Pyridine, 2-[(1E)-4-[6-[(1E)-4-[6-(1E)-1-tetradecen-3-yn-1-yl-3-pyridinyl]-1-buten-3-yn-1-yl]-3-pyridinyl]-1-buten-3-yn-1-yl]-5-[2-

(trimethylsilyl)ethynyl]- (CA INDEX NAME)

IT 805240-13-1P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and site-selective monotitanation of dialkynylpyridines and

- application for preparation of highly fluorescent pi-conjugated oligomers) RN 805240-19-1 CAPLUS
- CN Pyridine, 2-[(1E)-4-[6-[(1E)-4-[6-[(1E)-4-[6-(1E)-1-tetradecen-3-yn-1-y1-3-pyridiny1]-1-buten-3-yn-1-y1]-3-pyridiny1]-1-buten-3-yn-1-y1]-3-pyridiny1]-1-buten-3-yn-1-y1]-5-[2-(trimethylsily1)ethyny1]- (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A

PAGE 1-8

OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS
RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 9 OF 20 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2004:566840 CAPLUS Full-text

DOCUMENT NUMBER: 141:261152

TITLE:

\[\pi - \text{Conjugated Dendrimers Based on} \]

\[\text{Bis(enediynyl)} \]

\[\text{benzene Units} \]

AUTHOR(S):
\[\text{Hwang, Gil Tae; Kim, Byeang Hyean} \]

CORPORATE SOURCE: National Research Laboratory, Department of Chemistry,

Division of Molecular and Life Sciences, Pohang University of Science and Technology, Pohang, 790-784,

S. Korea

SOURCE: Organic Letters (2004), 6(16), 2669-2672 CODEN: ORLEF7; ISSN: 1523-7060

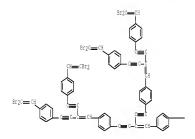
PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

- AB We have synthesized a new family of m-conjugated dendrimers that are based on bis(enediynyl)benzene units by using both divergent and convergent approaches. The compds. at all three generations have strong bluish-green flucrescence, especially the third-generation dendrimer, which has the highest extinction coefficient and quantum efficiency in this series.
- - (convergent and divergent synthesis of π-conjugated dendrimers based on bis(enediynyl)benzene units)
- RN 754233-16-4 CAPLUS
- CM Benzene, 1,4-bis[4-[4-[4-[4-(2,2-dibronoethenyl)]phenyl]-2-[[4-(2,2-dibronoethenyl)]phenyl]-2-[[4-(2,2-dibronoethenyl)]phenyl]-2-[[4-(2,2-dibronoethenyl)]phenyl]-2-[[4-(2,2-dibronoethenyl)]phenyl]-buten-3-ynyl]-buten-3-ynyl]-(SCI) (CA 1000X NAME)

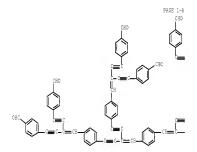
PAGE 1-A



PAGE 1-B PAGE 1-B

RN 754233-18-6 CAPLUS

[(4-formylphenyl)ethynyl]-1-buten-3-ynyl]phenyl]ethynyl]-1-buten-3ynyl]phenyl]methylene]-1,4-pentadiyne-1,5-diyl]bis[4,1-phenylene[3-[(4formylphenyl)ethynyl]-3-buten-1-yne-4,1-diyl]]]bis- (9CI) (CA INDEX MAME)

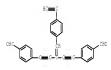


IT 206181-75-1

RL: RCT (Reactant); RACT (Reactant or reagent)

(in convergent approach; convergent and divergent synthesis of m-conjugated dendrimers based on bis(enedivnyl)benzene units)

- RN 206181-75-1 CAPLUS
- CN Benzaldehyde, 4,4'-[3-[(4-ethynylphenyl)methylene]-1,4-pentadiyne-1,5diyl]bis- (CA INDEX NAME)



OS.CITING REF COUNT: 17 THERE ARE 17 CAPLUS RECORDS THAT CITE THIS RECORD (17 CITINGS)

REFERENCE COUNT: THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

14 ANSWER 10 OF 20 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2004:382959 CAPLUS Full-text

DOCUMENT NUMBER: 141:88772

TITLE: Electrochemical and theoretical study of a family of

fully conjugated dendritic oligomers

Osorio, Gabriela; Frontana, Carlos; Guadarrama, AUTHOR(S): Patricia; Frontana-Uribe, Bernardo A.

Instituto de Quimica, UNAM, Circuito Exterior Ciudad

Universitaria, Mexico, 04510, Mex. SOURCE:

Journal of Physical Organic Chemistry (2004), 17(5),

439-447

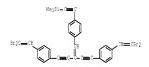
CODEN: JPOCEE: ISSN: 0894-3230

John Wiley & Sons Ltd.

PUBLISHER: DOCUMENT TYPE: Journal

CORPORATE SOURCE:

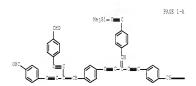
- AB Novel dendritic oligomers of β,β-dibromo-4-ethynylstyrene and formyl-4ethynylstyrene were electrochem, and theor, studied to gain a better insight into their redox behavior. Correlations between calculated ionization and exptl. oxidation potentials (anodic peak potentials) were established. The best correlation was obtained when two important effects are considered in the theor. calcns., probing their strong influence: (a) structural reaccommodation in the formed radical cation and (b) solvation effects. The effect of dendritic terminal groups (dibromovinyl and formyl groups) was also analyzed. A different redox behavior was observed for these two terminal groups, presumably due to a difference in their oxidation mechanisms. A global chemical transformation for the oxidation of dibromovinvl-terminated oligomers was proposed, providing a satisfactory explanation of the electrochem, behavior within this family of (presence of adsorptive phenomena). Taking these results into account, it is possible to explain how the cation-radical species formed in these confugated dendritic oligomers behave when cyclic voltammetry technique is applied.
- IT 76327-89-8 76377-90-1 76527-31-2 Ri: CPS (Chemical process): FRW [Formation, unclassified); PEP (Physical, engineering or chemical process): RPR [Properties]; RCT (Reactant); COM (Formation, nonpreparative); PROC (Process); RACT (Reactant or reagent) (electrochem. and theor. study of fully conjugated demdritic oligomers family)
- RN 716327-89-8 CAPLUS
 - N Silane, [[4-[4-[4-(2,2-dibroroethenyl]phenyl]-2-[[4-(2,2-dibromoethenyl)phenyl]ethynyl]-1-buten-3-ynyl]phenyl]ethynyl]trimethyl-, radical ion(1+) (9CI) (CA INDEX NAME)



- RN 716327-90-1 CAPLUS
- CN Benzene, 1,1'-[1,3-butadiyne-1,4-diyl)bis[4-[4-[4-(2,2-dibronoethenyl)phenyl]-2-[[4-(2,2-dibronoethenyl)phenyl]-1-buten-3-ynyl]-, radical ion(1+) (9CI) (CA INDEX NAME)

Br2C=CH
CH=CBr2

- RN 716327-91-2 CAPLUS
- CN Benzaldehyde, 4,4'-[[3-[[4-[(trimethylsilyl)ethynyl]ghenyl]methylene]-1,4pentadiyne-1,5-diyl]bis[4,1-phenylene]3-[(4-formylphenyl)ethynyl]-3-buten1-yne-4,1-diyl]]]bis-, radical ion(1+) (9CI) (CA INDEX NAME)



PAGE 1-B

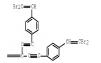
IT 205181-72-8 206181-74-6 206181-76-2

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)

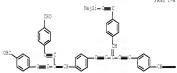
- (electrochem. and theor. study of fully conjugated dendritic oligomers family)
- RN 206181-72-8 CAPLUS
- Silane, [[4-[4-[4-(2,2-dibronoethenyl)phenyl]-2-[[4-(2,2-dibronoethenyl)phenyl]-1-buten-3-ynyl]phenyl]ethynyl]trinethyl-(9CI) (CA INDEX NAME)



- RN 206181-74-0 CAPLUS
- CN Benzene, 1,1'-[1,3-butadiyne-1,4-diyl)bis[4-[4-[4-(2,2-dibromoethenyl)phenyl]-2-[[4-(2,2-dibromoethenyl)phenyl]-1-buten-3-ynyl]- (9CI) (CA INDEX NAME)



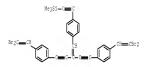
- RN 206181-76-2 CAPLUS
- CN Benzaldshyde, 4,4'-[[3-[[4-[(trimethylsily1)ethyny1]phenyl]methylene]-1,4-pentadiyne-1,5-diyl]bis[4,1-phenylene[3-[(4-formylphenyl)ethynyl]-3-buten-1-yne-4,1-diyl]]]bis- (9CT) (CA INDEX NAME)



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- IT 717144-23-5 717144-24-6 717144-28-7
 - RL: FMU (Formation, unclassified); PRP (Properties); RCT (Reactant); FORM (Formation, nonpreparative); RACT (Reactant or reagent)
 - (electrochem. and theor, study of fully conjugated dendritic oligomers family)
- RN 717144-23-5 CAPLUS
- CN Silane, [[4-[4-[4-(2,2-dibromoethenyl]phenyl]-2-[44-(2,2-dibromoethenyl)phenyl]ethynyl]-1-buten-3-ynyl]phenyl]ethynyl]trimethyl-, radical ion(1-) (9CI) (CA INDEX NAME)



- RN 717144-24-6 CAPLUS
- CN Benzene, 1,1'-[1,3-butadiyne-1,4-diyl)bis[4-[4-[4-(2,2-dibromoethenyl)phenyl]-2-[[4-(2,2-dibromoethenyl)phenyl]-1-buten-3-ynyl]-, radical ion[1-) (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

- RN 717144-25-7 CAPLUS
- CN Benzaldehyde, 4,4'-[[3-[[4-((trimethylsily1)ethyny1]pheny1]methylene]-1,4pentadiyne-1,5-diyl]bis[4,1-phenylene[3-[(4-formylphenyl)ethynyl]-3-buten-1-yne-4,1-diyl]]]bis-, radical ion(1-) (9CI) (CA INDEX NAME)

PAGE 1-B



OS.CITING REF COUNT: THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CTTTNCC) REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS

RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

14 ANSWER 11 OF 20 CAPLUS COPYRIGHT 2009 ACS on STN

2002:658690 CAPLUS <u>Full-text</u> ACCESSION NUMBER: DOCUMENT NUMBER: 137:208374

TITLE: Manufacturing method of semiconductor device using

mask pattern having high etching resistance

INVENTOR(S): Ohuchi, Junko; Sato, Yasuhiko; Shiobara, Eishi; Hayashi, Hisataka; Ohiwa, Tokuhisa; Onishi, Yasunobu

Kabushiki Kaisha Toshiba, Japan PATENT ASSIGNEE(S):

SOURCE: U.S. Pat. Appl. Publ., 26 pp. CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| | PATENT | NO. | KIND | DATE | APE | LICATION NO. | | DATE |
|----|----------|-----------|------|----------|-----|--------------|----|----------|
| | | | | | | | | |
| | US 2002 | 0119612 | Al | 20020829 | US | 2001-14459 | | 20011214 |
| | US 6576 | 562 | B2 | 20030610 | | | | |
| | JP 2002 | 305187 | A | 20021018 | JΡ | 2001-381504 | | 20011214 |
| | JP 3504 | 247 | B2 | 20040308 | | | | |
| ٦I | DITY ADD | IN THEO . | | | .TD | 2000-381410 | Z. | 20001215 |

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

- AB A manufacturing method of semiconductor device comprises (1) forming a mask material having an aromatic ring and carbon content of 2 80 % on an object, (2) forming a mask material pattern by etching the mask material to a desired pattern, and (3) etching the object to transfer the mask material pattern as a mask to the object.
- IT 452303-35-4
 - RL: TEM (Technical or engineered material use); USES (Uses) (semiconductor device mask pattern having high etching resistance
- RN 452303-35-4 CAPLUS
- CN 1,1':3',1'':3'',1''':4''',1'''':3'''',1'''':4'''',1'''':3'''',1'''': Trideciphenyl,
 - 4,5''-diethynyl-5''''-(4'-ethynyl[1,1'-biphenyl]-4-v1)-5''''-[3'''ethynyl-5'-(4'-ethynyl[1,1'-biphenyl]-4-yl)[1,1':3',1'':4'',1'''guaterphenvl]-4-vl]-5'''''-[4'-ethynvl-5-[4-(4-ethynvlphenvl)-3-buten-1ynyl][1,1'-biphenyl]-3-yl]-5''''-(3'-ethynyl-5'-methyl[1,1'-biphenyl]-4v1)-3''''-trimethyl- (9CI) (CA INDEX NAME)

PAGE 1-R

OS CITING REF COUNT: 8 THERE ARE 8 CAPLUS RECORDS THAT CITE THIS RECORD (8 CITINGS)

14 ANSWER 12 OF 20 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2002:198497 CAPLUS Full-text

DOCUMENT NUMBER: 136-401857

TITLE: Acetylide-Bridged Organometallic Oligomers via the

Photochemical Metathesis of Methyl-Iron(II) Complexes AUTHOR(S): Field, Leslie D.; Turnbull, Anthony J.; Turner, Peter CORPORATE SOURCE: School of Chemistry, The University of Sydney, Sydney,

2006, Australia

SOURCE: Journal of the American Chemical Society (2002),

124(14), 3692-3702

CODEN: JACSAT; ISSN: 0002-7863

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 136:401857

AB The acetylido Me iron(II) complexes, cis/trans-[Fe(dmpe)2(C.tplbond.CR)(CH3)] (1) and trans-[Fe(depe)2(C.tplbond.CR)(CH3)] (2) (dmpe = 1,2-

dimethylphoshinoethane; depe = 1,2-diethylphosphinoethane), were synthesized by transmetalation from the corresponding alkyl halide complexes. Acetylido Me iron(II) complexes were also formed by transmetalation from the chloride complexes, trans-[Fe(dmpe)2(C.tplbond.CR)(Cl)] or trans-

[Fe(depe)2(C.tplbond.CR)(Cl)]. The structure of trans-[Fe(dmpe)2(C.tplbond.CC6H5)(CH3)] (la) was determined by single-crystal x-ray diffraction. The Me acetylido iron complexes, [Fe(dmpe)2(C.tplbond.CR)(CH3)] (1), are thermally stable in the presence of acetylenes; however, under UV irradiation, methane is lost with the formation of a metal bisacetylide. Photochem, metathesis of cis- or trans-[Fe(dmpe)2(CH3)(C.tplbond.CR)] (R = C6H5 (1a), 4-C6H4OCH3 (1b)) with terminal acetylenes was used to selectively synthesize unsym, substituted iron(II) bisacetylide complexes of the type trans-[Fe(dmpe)2(C.tplbond.CR)(C.tplbond.CR')] [R = Ph, R' = Ph (6a), 4-CH30C6H4 (6b), tBu (6c), SiMe3 (6d), (CH2)4C.tplbond.CH (6e); R = 4-CH30C6H4,

R' = 4-CH3OC6H4, (6g), tBu (6h), (CH2)4C.tplbond.CH (6i), adamantyl (6j)]. The structure of the unsym. iron(II) bisacetylide complex trans-[Fe(dmpe)2(C.tplbond.CC6H5)(C.tplbond.CC6H4OCH3)] (6b) was determined by single-crystal x-ray diffraction. The photochem. metathesis of the bisacetylene, 1,7-octadiyne, with trans-[Fe(dmpe)2(CH3)(C.tplbond.CPh)] (1a), was utilized to synthesize the bridged binuclear species trans, trans-

((C6H5C.tplbond.C)Fe(dmpe)2(u-

C.tplbond.C(CH2)4C.tplbond.C)Fe(dmpe)2(C.tplbond.CC6H5)] (11). The trinuclear species trans,trans,trans-[(C6H5C.tplbond.C)Fe(dmpe)2(µ-

C.tplbond.C(CH2)4C.tplbond.C)Fe(dmpe)2(u-

C.tplbond.C(CH2)4C.tplbond.C)Fe(dmpe)2(C.tplbond.CC6H5)] (12) was synthesized by the photochem. reaction of

Fe(dmpe)2(C.tplbond.CPh)(C.tplbond.C(CH2)4C.tplbond.CH) (6e) with Fe(dmpe)2(CH3)2. Extended irradiation of the bisacetylide complexes with phenylacetylene resulted in insertion of the terminal alkyne into one of the metal acetylide bonds to give acetylide butenyne complexes. The structure of the acetylide butenyne complex, trans-[Fe(dmpe)2(C.tplbond.CC6H4OCH3)(\eta1-C(C6H5):CH(C.tplbond.CC6H4OCH3))] (9a) was determined by single-crystal x-ray diffraction.

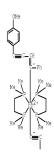
IT 425380-70-7P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and crystal structure of)

RN 425380-70-7 CAPLUS

CN Iron, bis[1,2-ethanedivlbis[dimethylphosphine-KP]][(4-

methoxyphenyl)ethynyl][(1E)-4-(4-methoxyphenyl)-1-phenyl-1-buten-3-ynyl]-,
(OC-6-11)- (9CI) (CA INDEX NAME)



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PAGE 2-A

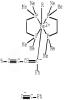


IT 425380-85-49

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)

- RN 425380-85-4 CAPLUS
- CN Iron, [(1E)-1,4-diphenyl-1-buten-3-ynyl]bis[1,2ethanediylbis[dimethylphosphine-KP]](phenylethynyl)-, (OC-6-11)-

(9CI) (CA INDEX NAME)



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OS.CITING REF COUNT: 13 THERE ARE 13 CAPLUS RECORDS THAT CITE THIS

RECORD (13 CITINGS)

REFERENCE COUNT: 72 THERE ARE 72 CITED REFERENCES AVAILABLE FOR THIS RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

14 ANSWER 13 OF 20 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1999:673316 CAPLUS Full-text

DOCUMENT NUMBER: 131:337589

TITLE: Electronic structure of fully conjugated dendritic

oligomers of β,β-dibromo-4-ethynyl styrene
AUTHOR(S): Fomine, Serguei; Fomina, Lioudmila; Guadarrama,

Patricia

CORPORATE SOURCE: Universidad Nacional Autonoma Mexico, Inst de Investigaciones en Materiales, Coyoacan, 04510 CU,

Man

SOURCE: THEOCHEM (1999), 488, 207-216

CODEN: THEODJ; ISSN: 0166-1280

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal LANGUAGE: English

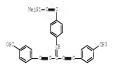
AB Quantum-mech. calcns. of fully conjugated dendritic oligomers carried out at BSINF/3-216/J8F/3-216 (d) and BSINF/3-216/J8F/3-216 levels of theory showed that loose dendritic architecture of β,β-dibrono-4-ethynyl styreme oligomers contributes little to the instability and conjugation disruption compared to 1 → 2 branched polyacetylane, while Br terminal atoms in dendrimers strongly affect the electronic d. distribution in studied mols. On the one hand the bully bromine atoms decrease the conjugation in Br-terminated dendrimers caused by steric hindrances, on the other hand, highly polarizable bromine atoms decrease the conjugation potentials (IPe). Another phenomenon contributing to the reducing of IPe's of all dendrimers is the flattening of mol. generity accompanying the ionization thus allowing better delocalization of pos. charge over the conjugated system while all aromatic ring except the very outer layer lost their aromaticity becoming essentially quinone by nature.

IT 206181-71-7 206181-72-8 206181-73-9 206181-74-0 206181-75-1 206181-76-2 206181-77-3 206181-78-4 206181-73-5

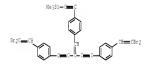
RL: PRP (Properties)

(electronic structure of fully conjugated dendritic oligomers of β,β -dibromo-4-ethynyl styrene)

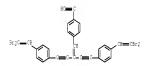
- RN 206181-71-7 CAPLUS
- CN Benzaldehyde, 4,4'-[3-[[4-[(trimethylsily1)ethynyl]phenyl]methylene]-1,4-pentadiyne-1,5-diyl]bis- (9CI) (CA INDEX NAME)



- RN 206181-72-8 CAPLUS
- CN Silane, [[4-[4-[4-(2,2-dibromoethenyl]phenyl]-2-[[4-[2,2-dibromoethenyl]phenyl]ethynyl]-1-buten-3-ynyl]phenyl]ethynyl]trimethyl(9CI) (CA INDEX NAME)



- RN 206181-73-9 CAPLUS
- CN Benzene, 1,1'-[3-[(4-ethynylphenyl)methylene]-1,4-pentadiyne-1,5-diyl]bis[4-(2,2-dibromoethenyl)- (9CI) (CA INDEX NAME)

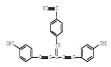


- RN 206181-74-0 CAPLUS
- CN Berzene, 1,1'-(1,3-butadiyne-1,4-diyl)bis[4-[4-[4-(2,2-dibromoethenyl)pheryl]-2-[[4-(2,2-dibromoethenyl)pheryl]-1-buten-3-ynyl]- (9CI) (CA INDEX NAME)

PAGE 1-A ÇH**=**CBr2

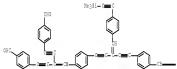
PAGE 1-B

- RN 206181-75-1 CAPLUS
- CN Benzaldehyde, 4,4'-[3-[(4-ethynylphenyl)methylene]-1,4-pentadiyne-1,5-diyl]bis- (CA INDEX NAME)



- RN 206181-76-2 CAPLUS
- CN Benzaldehyde, 4,4"-[3-[(4-[(trimethylsily1)ethynyl]phenyl]methylene]-1,4pentadiyne-1,5-diyl]bis[4,1-phenylene]3-[(4-formylphenyl)ethynyl]-3-buten1-yne-4,1-diyl]]]bis- (9CI) (CA INDEX MAME)

PAGE 1-A





RN 206181-77-3 CAPLUS

CN Benzaldehyde, 4,4'-[[3-[(4-ethynylphenyl)methylene]-1,4-pentadiyme-1,5-diyl]bis[4,1-phenylene]3-[(4-formylphenyl)ethynyl]-3-buten-1-yne-4,1-diyl]]bis-(9CI) (CA INDEX NAME)

PAGE 1-B

RN 206181-78-4 CAPLUS

CN Benzaldehyde, 4,4"-[1,3-butadiyne-1,4-diylbis[4,1-phenylene]3-[[4-[4-(4-formylpheny])-2-[4-formylpheny]]-1-buten-3-ynyl]phenyl]-1-buten-1-yne-4,1-diyl]-4,-phenylene[3-[(4-formylphenyl) ethynyl]-3-buten-1-yne-4,1-diyl]]pis= [901] (CA INDEX MANE)

CHO (SO 1-B) (SO (CHO) (

RN 206181-79-5 CAPLUS

CI Silane, [[4-[4-[4-[4-(2,2-dibromoethenyl]phenyl]-2-[4-(2,2-dibromoethenyl)phenyl]-2-[4-(4-(2,2-dibromoethenyl)phenyl]-2-[14-(4-(2,2-dibromoethenyl)phenyl]-2-[14-(2,2-dibromoethenyl)phenyl]-1-buten-3-ywyl]phenyl]ethynyl]-1-buten-3-ywyl]phenyl]ethynyl]-1-buten-3-ywyl]phenyl]ethynyl]-1-buten-3-ywyl]phenyl]ethynyl]trimethyl- (9CI) (CA INDEX NAME)

PAGE 1-A MegSi-C

PAGE 1-B



THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD OS.CITING REF COUNT:

(2 CITINGS)

THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 14 OF 20 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1999:650836 CAPLUS Full-text

DOCUMENT NUMBER: 132:16702

TITLE: Theoretical description of luminescent effects in

 β , β -di(4'-formylphenylethynyl)-4-

ethynylstyrene

AUTHOR(S): Salcedo, R.; Guadarrama, P.; Sansores, L. E.; Fomine,

S.: Fomina, L.

CORPORATE SOURCE: Inst. de Investigaciones en Materiales, Inst. de

Investigaciones en Materiales, UNAM, Mexico, 04510,

SOURCE: Materials Research Society Symposium Proceedings

(1999), 560 (Luminescent Materials), 359-364

CODEN: MRSPDH; ISSN: 0272-9172

PUBLISHER: Materials Research Society

DOCUMENT TYPE: Journal LANGUAGE: English

AB Theor. calcns. at HF/6-31 G(d) level were carried out on fully conjugated compds. (4-ethynylbenzaldehyde, β , β -dibromo-4-ethynylstyrene, β , β -Di(4'formylphenylethynyl)-4-ethynylstyrene and its dimmer) to understand the source of blue emission observed in oligoners of the 1st and 2nd generation in CHC13 solns. The frontier orbitals are distributed through the framework of the mols. (benzene rings, double and triple bonds and chromophores). Addnl., a CI approach was applied over β, β -Di(4'-formylphenylethynyl)-4-ethynylstyrene

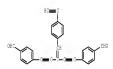
(compound 3) at CIS/6-31 G(d) level to modeling excited states and simulate the UV-visible spectrum exptl. obtained. Calculated transitions corresponded to SO-S1 which are, presumably, responsible for the fluorescence observed IT 206181-75-1 251479-54-2

RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)

(theor, description of luminescent effects in styrene derivs.)

RN 206181-75-1 CAPLUS

CN Benzaldehyde, 4,4'-[3-[(4-ethynylphenyl)methylene]-1,4-pentadiyne-1,5diyl]bis- (CA INDEX NAME)

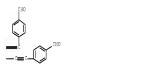


RN 251479-84-2 CAPLUS

CN Benzaldehyde, 4,4'-[1,3-butadiyne-1,4-diylbis[4,1-phenylene[3-[44formylphenyl)ethynyl]-3-buten-1-yne-4,1-diyl]]bis- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B



OS.CITING REF COUNT:

THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

REFERENCE COUNT:

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT L4 ANSWER 15 OF 20 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1998:269262 CAPLUS Full-text

DOCUMENT NUMBER: 128:257221 ORIGINAL REFERENCE NO.: 128:50919a,50922a

TITLE: Steric Hindrance Facilitated Synthesis of Enymes and

Their Intramolecular [4 + 2] Cycloaddition with

Alkynes

AUTHOR(S): Gonzalez, Juan J.; Francesch, Andres; Cardenas, Diego

J.; Echavarren, Antonio M. Departamento de Quimica Organica, Universidad Autonoma

CORPORATE SOURCE:

de Madrid, Madrid, 28049, Spain

Journal of Organic Chemistry (1998), 63(9), 2854-2857 SOURCE:

CODEN: JOCEAH; ISSN: 0022-3263 American Chemical Society PUBLISHER:

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 128:257221

AB The palladium-catalyzed insertion of 1-alkynes into internal alkynes which are bent out of linearity by the interference with a peri or ortho substituent led to envines regional ectively. The resulting envines undergo a new type of intramol. thermal cycloaddn., which can be used for the annulation of an aryl ring onto naphthalene derivs, to afford fluranthenes. The cyclization of (E)-1-(1-buten-3-ynyl)-8- ethynylnaphthalene could also be performed in the presence of a Cu(I) catalyst at room temperature

IT 205124-29-69

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of envnes and their intramol, [4+2]cycloaddn, with alkynes)

RN 205124-39-6 CAPLUS

CN 4-Pentyn-2-ol, 2-methyl-5-(4-methylphenyl)-3-[[8-[2-(4methylphenyl)ethynyl]-1-naphthalenyl]methylene]-, (3Z)- (CA INDEX NAME)

Double bond geometry as shown.



OS.CITING REF COUNT: 22 THERE ARE 22 CAPLUS RECORDS THAT CITE THIS

RECORD (22 CITINGS)

REFERENCE COUNT: THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS

RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 16 OF 20 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1998:247633 CAPLUS Full-text

DOCUMENT NUMBER: 128:295129 ORIGINAL REFERENCE NO.: 128:58501a.58504a

TITLE: Synthesis and characterization of well-defined fully

conjugated hyperbranched oligomers of

B, B-dibromo-4-ethynylstyrene

AUTHOR(S): Fomina, Lioudmila; Guadarrama, Patricia; Fomine, Serguei: Salcedo, Roberto: Ogawa, Takeshi

Instituto Investigaciones Materiales, Univ. Nacional CORPORATE SOURCE:

Autonoma de Mexico, Mexico, 04510, Mex. Polymer (1998), 39(12), 2629-2635

SOURCE: CODEN: POLMAG: ISSN: 0032-3861

Elsevier Science 1td. PUBLISHER .

DOCUMENT TYPE: Journal LANGUAGE: English

AB Well-defined dendritic oligomers of poly($\beta_1\beta$ -dibromo-4-ethynylstyrene) of the first and second generation were synthesized by a stepwise synthesis, and characterized, NMR and theor, calcns, showed that free rotation around formal single bonds is hampered by conjugation. All of the oligomers were blue emitters with their emission maxima correlating with the number of repeating units. All dendrimers except β, β -bis $[\beta', \beta'$ -di $[\beta'', \beta''$ - dibromostyryl-4"ethynyl)styryl-4'-ethynyl]-4-ethynylstyrene showed two maxima in the excitation spectra.

II 206181-71-70 206181-70-80 256181-73-3P 206181-74-09 256181-75-1E 206181-76-2P

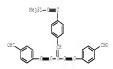
206161-77-39 206131-78-4P

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and characterization of conjugated hyperbranched β,β-dibromo-4-ethynylstyrene oligomers)

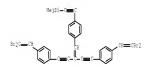
RN 206181-71-7 CAPLUS

CN Benzaldehyde, 4,4'-[3-[[4-[(trimethylsily1)ethynyl]phenyl]methylene]-1,4pentadiyne-1,5-diyl]bis- (9CI) (CA INDEX NAME)



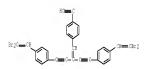
RN 206181-72-8 CAPLUS

CN Silane, [[4-[4-[4-(2,2-dibromoethenyl)phenyl]-2-[[4-(2,2dibromoethenyl)phenyl]ethynyl]-1-buten-3-ynyl]phenyl]ethynyl]trimethyl-(9CI) (CA INDEX NAME)

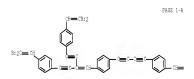


RN 206181-73-9 CAPLUS

CN Benzene, 1,1'-[3-[(4-ethynylphenyl)methylene]-1,4-pentadiyne-1,5-diyl]bis[4-(2,2-dibromoethenyl)- (9CI) (CA INDEX NAME)



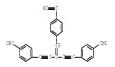
- RN 206181-74-0 CAPLUS
- CN Benzene, 1,1'-[1,3-butadiyne-1,4-diyl)bis[4-[4-[4-(2,2-dibromoethenyl)phenyl]-2-[[4-(2,2-dibromoethenyl)phenyl]-1-buten-3-ynyl]- (9CI) (CA INDEX NAME)



PAGE 1-B



- RN 206181-75-1 CAPLUS
- CN Benzaldehyde, 4,4'-[3-[(4-ethynylphenyl)methylene]-1,4-pentadiyne-1,5-diyl]bis- (CA INDEX NAME)



- RN 206181-76-2 CAPLUS
- CN Benzaldehyde, 4,4'-[[3-[[4-[(trimethylsilyl)ethynyl]phenyl]methylene]-1,4-pentadiyne-1,5-diyl]bis[4,1-phenylene]3-[(4-formylphenyl)ethynyl]-3-buten-1-yne-4,1-diyl]]bis-(9CI) (CA INDEX NAME)

PAGE 1-B



- RN 206181-77-3 CAPLUS
- CN Benzaldehyde, 4,4'-[[3-[(4-ethynylphenyl)methylene]-1,4-pentadiyne-1,5-diyl]bis[4,1-phenylene[3-[(4-formylphenyl)ethynyl]-3-buten-1-yne-4,1-diyl]]bis-(9CI) (CR INCEX NAME)

RN 206181-78-4 CAPLUS

Benzaleknyde, 4,4-[1,3-butadiyne-1,4-diylbis[4,1-pkenylene]3-[[4-[4-(4-formylpheny])-2-[(4-formylpheny])-1-buten-3-ynvyl]phenyllethynyl]-1-buten-3-ynvyl]phenyllethynyl]-3-buten-1-yne-4,3-diyl]]plis-9011 (CA INDEX MANE)

II 206181-79-69

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and characterization of conjugated hyperbranched β, β -dibromo-4-ethynylstyrene oligomers)

RN 206181-79-5 CAPLUS

CM Silane, [[4-[4-[4-[4-(2,2-dibroncethenyl)phenyl]-2-[[4-(2,2-dibroncethenyl)phenyl]-2-[[4-(2,2-dibroncethenyl)phenyl]-2-[(4-[4-(4-(2,2-dibroncethenyl)phenyl]-2-[[4-(2,2-dibroncethenyl)phenyl]-2-buten-3-ynyl]phenyl]ethynyl]-1-buten-3-ynyl]phenyl]ethynyl]-1-buten-3-ynyl]phenyl]ethynyl]-1-buten-3-ynyl]phenyl]ethynyl]trimethyl- (9CI) (CA THOEX NAME)



OS.CITING REF COUNT: 11 THERE ARE 11 CAPLUS RECORDS THAT CITE THIS

RECORD (11 CITINGS)

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 17 CF 20 CAPJUS COPYRIGHT 2009 ACS on SIN ACCESSION NUMBER: 1996:303100 CAPJUS <u>Full-text</u>
DOCUMENT NUMBER: 125:11582
GRIGHMAL REFERENCE NO.: 125:2339a.2542a

TITLE: Synthesis and polymerization of

B.B-dibromo-4-ethynylstyrene; preparation of

a new polyconjugated, hyperbranched polymer

AUTHOR(S): Fomina, Lioudmila; Salcedo, Roberto
CCRPORATE SOURCE: Inst. Investigaciones Materiales, Circuito Exterior,

Ciudad Univ., Mexico City, 04510, Mex.

SCURCE: Polymer (1996), 37(9), 1723-1728

CODEN: POLNAG; ISSN: 0032-3861

PUBLISHER: Elsevier
DCCUMENT TYPE: Journal
LANGUAGE: English

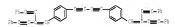
AB The monomer, β , β -dibrono-4-ethynylstyrene, was prepared and polymerized by the Heck reaction to give a partially soluble, conjugated hyperbranched polymer. The polymer structure was elucidated using standard spectroscopic techniques and with the aid of model compound synthesis. Theor. calcns. using the AMI method were carried out and showed that conjugation in the polymer is partially disrupted by twisting of the benzene rings. Both the model compound and the polymer showed luminescence.

IT 177410-40-1P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (model compound for dibromoethynylstyrene polymer)

RN 177410-40-1 CAPLUS

CN Benzene, 1,1'-(1,3-butadiyne-1,4-diyl)bis[4-[4-phenyl-2-(phenylethynyl)-1-buten-3-ynyl]- (9CI) (CA INDEX NAME)



OS.CITING REF COUNT: 16 THERE ARE 16 CAPLUS RECORDS THAT CITE THIS RECORD (16 CITINGS)

L4 ANSWER 18 OF 20 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1995:946580 CAPLUS Full-text

DOCUMENT NUMBER: 124:9540

CRIGINAL REFERENCE NO.: 124:2031a,2034a

TITLE: Novel polymers containing discrete conjugated units,

produced by the Heck reaction
AUTHOR(S): Fomine, Sergei; Fomina, Lioudi

AUTHOR(S): Fomine, Sergei; Fomina, Lioudmila; Florentino, Hector Quiroz; Mendez, Juan Manuel; Ogawa, Takeshi

Instituto de Investigaciones en Materiales,

Universidad Nacional Autonoma de Mexico, Covoacon,

04510, Mex.

SOURCE: Polymer Journal (Tokyo) (1995), 27(11), 1085-93

CODEN: POLJB8; ISSN: 0032-3896

PUBLISHER: Society of Polymer Science, Japan BOCUMENT TYPE: Journal

LANGUAGE: English

AB Novel monomers and polymers containing arylenevinylideneethymylene groups were synthesized via the Heck reaction. The polymers were amorphous and soluble in common organic solvents. They have Tg. approx.60°, 8 weight loss at 240-340° and undergo thermal crosslinking at 170-180° with loss of triple bonds. One of the polymers exhibits strong blue luminescence with emission maxima apprx.380-390 and 470-480 nm with excitation at 320 nm. All polymers show

3rd order NLO susceptibility .apprx.10-10 esu.

IT 171296-95-09

CORPORATE SOURCE:

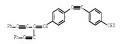
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; in preparation of polyacetylene-polyesters)

RN 171296-95-0 CAPLUS

 ${\tt CN \quad Benzaldehyde, \ 4-[2-[4-[4-phenyl-2-(2-phenylethynyl)-1-buten-3-yn-1-}$

yl]phenyl]ethynyl]- (CA INDEX NAME)



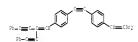
IT 171296-96-18

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(monomer; in preparation of polyacetylene-polyesters)

RN 171296-96-1 CAPLUS

CN Benzene, 1-[2-[4-(2,2-dibromoethenyl)phenyl]ethynyl]-4-[4-phenyl-2-(2-phenylethynyl)-1-buten-3-yn-1-yl]- (CA INDEX NAME)



IT 171296-99-49

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation, characterization and properties of)

RN 171296-99-4 CAPLUS

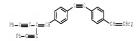
CN Decanedioic acid, di-2-propynyl ester, polymer with

1-[[4-(2,2-dibromoethenyl)phenyl]ethynyl]-4-[4-phenyl-2-(phenylethynyl)-1-buten-3-ynyl]benzene (9CI) (CA INDEX NAME)

CM :

CRN 171296-96-1

CMF C34 H20 Br2



CM 2

CRN 93164-22-8

CMF C16 H22 O4

- IT 171237-02-2, β,β-Bis(phenylethynyl)-4-ethynylstyrene
 - RL: RCT (Reactant); RACT (Reactant or reagent)
 - (reactant; in preparation of polyacetylene-polyesters)
- RN 171297-02-2 CAPLUS
- CN Benzene, 1-ethynyl-4-[4-phenyl-2-(2-phenylethynyl)-1-buten-3-yn-1-yl]-(CA INDEX NAME)



OS.CITING REF COUNT: 11 THERE ARE 11 CAPLUS RECORDS THAT CITE THIS RECORD (11 CITINGS)

L4 ANSWER 19 OF 20 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1995:642218 CAPLUS Full-text

DOCUMENT NUMBER: 123:33763
ORIGINAL REFERENCE NO.: 123:6259a,6262a

TITLE: Synthesis and molten-state polymerization of some

novel conjugated diacetylenes
Fomina, Lioudmila; Allier, Hector; Fomine, Sergei;

Salcedo, Roberto; Ogawa, Takeshi

Inst. Investigaciones Materiales, Ciudad Univ.,

Mexico, 04510, Mex.

SOURCE: Polymer Journal (Tokyo) (1995), 27(6), 591-600

CODEN: POLJB8; ISSN: 0032-3896

PUBLISHER: Society of Polymer Science, Japan

DOCUMENT TYPE: Journal LANGUAGE: English

AB A series of new, highly conjugated diacetylenes, 4-ethynylstilbene derivs., was synthesized and their polymerization was studied. None of them was found to undergo topochem. polymerization in the solid state but they readily polymerized in the molten state to give red transparent and amorphous polymers. All the polymers had an absorption maximum in the wisible spectra around 500 nm, and FT-IR data showed the enyme structure of the polymer chain resulted from 1.4-addition.

IT 164467-30-59

AUTHOR(S):

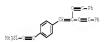
CORPORATE SOURCE:

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(in preparation of ethynylstilbene derivative monomers)

RN 164467-30-5 CAPLUS

CN Benzene, 1-[4-phenyl-2-(2-phenylethynyl)-1-buten-3-yn-1-yl]-4-[2-(trimethylsilyl)ethynyl]- (CA INDEX NAME)



IT 164467-25-89

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation and characterization of polydiacetylenes from ethynylstilbene derivs. in molten state)

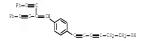
RN 164467-25-8 CAPLUS

CN 3,5-Hexadiyn-1-ol, 6-[4-[4-phenyl-2-(phenylethynyl)-1-buten-3-ynyl]phenyl]-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 164467-20-3

CMF C30 H20 O



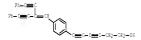
IT 164467-20-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and polymerization of)

RN 164467-20-3 CAPLUS

CN 3,5-Bexadiyn-1-ol, 6-[4-[4-phenyl-2-(2-phenylethynyl)-1-buten-3-yn-1-yl]phenyl]- (CA INDEX NAME)



OS.CITING REF COUNT: 11 THERE ARE 11 CAPLUS RECORDS THAT CITE THIS

RECORD (11 CITINGS)

L4 ANSWER 20 OF 20 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1994:522234 CAPLUS Full-text

DCCUMENT NUMBER: 121:122234
ORIGINAL REFERENCE NO.: 121:21825h,21826a

TITLE: Difluoride derivative and liquid crystal composition

containing the same
INVENTOR(S): Yokokoji, Osamu; Irisawa, Jun; Koh, Hidemasa

PATENT ASSIGNEE(S): Asahi Glass Co., Ltd., Japan

SCURCE: PCT Int. Appl., 43 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| | ENT N | | | | KIN | - | DATE | | | APPLICATION NO. | | | | | | | DATE | | | |
|----------|--------------------|------|------|-----|-----|----------|------|-----|----------------|-----------------|-----|------|---------|-----|----|-------|------|--|--|--|
| | 0 9405613
W: US | | | A1 | | 19940317 | | WO | WO 1993-JP1235 | | | | 1993090 | | | | | | | |
| | RW: | ΑT, | BE, | CH, | DΕ, | DK, I | SS, | FR, | GB, G | | | | | MC, | NL | , PT, | SE | | | |
| EP 6 | 62852 | 8 | | | Al | 1 | 9941 | 214 | EP | 19 | 93- | 9196 | 02 | | | 19930 | 901 | | | |
| | R: | DΕ, | FR, | GB, | IT | | | | | | | | | | | | | | | |
| JP (| 06263 | 661 | | | A | 15 | 3940 | 920 | JP | 19 | 93- | 2197 | 09 | | | 19930 | 903 | | | |
| JP 3 | 35647 | 11 | | | B2 | 21 | 0040 | 915 | | | | | | | | | | | | |
| US S | 54198 | 51 | | | A | 1 | 9950 | 530 | US | 19 | 94- | 2116 | 25 | | | 19940 | 420 | | | |
| JP 2 | 20042 | 9248 | 54 | | A | 21 | 0041 | 021 | JP | 20 | 04- | 1152 | 11 | | | 20040 | 409 | | | |
| JP 3 | 37074 | 93 | | | B2 | 21 | 0051 | 019 | | | | | | | | | | | | |
| PRICRITY | APPL | N. : | NFO. | | | | | | JP | 19 | 92- | 2630 | 27 | | A | 19920 | 904 | | | |
| | | | | | | | | | WO | 19 | 93- | JP12 | 35 | | W | 19930 | 901 | | | |
| | | | | | | | | | JP | 19 | 93- | 2197 | 09 | | A3 | 19930 | 903 | | | |

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OTHER SOURCE(S): MARPAT 121:122234

GI

AB Difluoride derivs, represented by the general formula: R1(A1Y1)mA2CF:CFC.tolbond.CA3(Y2A4)nR2 (A1 - A4 = trans-1,4-cvclohexvlene, 1,4-cyclohexenylene, or 1,4-phenylene wherein ≥1 CH groups of each ring may be substituted by N or ≥1 CH2 groups of the ring may be substituted by O or S; m, n = 0, 1; R1, R2 = C1-10 alkyl, halo, cyano wherein (1) 0, CO2, or C2C may be inserted between the C-C bond of alkyl or that between alkyl and ring, (2) a part of the C-C bonds in alkyl is replaced by C:C or C.tplbond.C bond, or (3) one CH2 group in alkyl is replaced by CO group; Y1, Y2 = CO2, O2C, C.tplbond.C, CH2CH2, CH:CH, CCH2, CH2C) are prepared These compds. have low viscosity, are light-stable, and hence can provide a liquid crystal composition having high response speed. Thus, 0.1 mol ClCF:CF2 was blown into THF at -100° followed by adding dropwise 62.1 mL 1.61 M BuLi/hexane, stirring for 30 min, adding dropwise 0.1 mol Me3SiCl, stirring for 1 h, adding dropwise a solution of 4-propylphenyl lithium in THF (prepared from 4-propyliodobenzene and BuLi) at -100°, and stirring for 2 h at 0° to give 75% (Z)-4-PrC6H4CF:CFSiMe3. The latter compound (0.075 mol) was reacted with 0.15 mol KF in aqueous MeCN at 70° for 1 h to give 83% (E)-4-PrC6H4CF:CFH which (0.062 mol) was dissolved in THF, cooled to -78°, and treated dropwise with 38.5 mL 1.61 M BuLi/hexane followed by stirring for 30 min, adding 15.7 g iodine, and stirring at room temperature for 4 h to give 83% (E)-4-PrC6H4CF:CFI. The latter compound (0.051 mol) and 0.051 mol 4-propylphenylacetylene were dissolved in 100 mL Et3N followed by adding Pd(PPh3)2Cl2 and CuI and the resulting mixture was allowed to react at room temperature for 6 h to give 70% diphenyldifluorobutenyne derivative (I). A STN-type liquid crystal display device was prepared from a liquid composition containing 20 weight% I and 80 weight% ZLI-1565 and irradiated with a UV carbon arc lamp for 200 h; new compds. were hardly formed whereas cis-4,4'-bis(n-propyl)difluorostilbene was formed in a liquid crystal composition containing ZLI-1565 and trans-4,4'bis(n-propyl)difluorostilbene.

IT 156863-08-82

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of, as liquid crystal with UV stability and low viscosity)

RN 156869-08-8 CAPLUS

CN Benzene, 1-[1,2-difluoro-4-(4-propylphenyl)-1-buten-3-ynyl]-4-[(4-methylphenyl)ethynyl]-, (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

CS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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graphy of way, many the way of

chain nodes :

2 3 4 5 6 7 8 9 10 11 12 13 14 15 20 24

chain bonds :

2-3 2-24 3-4 4-5 5-6 6-7 7-8 8-9 9-10 10-11 11-12 12-13 13-14 14-15

ovact/norm bonds +

2-3 2-24 8-9 9-10 15-20

evant honds :

3-4 4-5 5-6 6-7 7-8 10-11 11-12 12-13 13-14 14-15

G1:Cb,Cy,Hy

G2:C,H,O,N,C1,Br,F,I

G3:C, H, Si, Cb, Cy, Hy

Match level :

2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS 10:CLASS 11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 20:CLASS 24:CLASS

L5 STRUCTURE UPLOADED

=> s 15 sss full

FULL SEARCH INITIATED 13:07:29 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 11729 TO ITERATE

100.0% PROCESSED 11729 ITERATIONS SEARCH TIME: 00.00.01

1729 ITERATIONS 106 ANSWERS

L6 106 SEA SSS FUL L5

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=> s 16

.7 32 L6

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YOU HAVE REQUESTED DATA FROM 32 ANSWERS - CONTINUE? Y/(N):v

L7 ANSWER 1 OF 32 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2009:1099083 CAPLUS Full-teyt

DOCUMENT NUMBER: 151:508432

TITLE: Hybrid Conjugated Organic Oligomers Consisting of Oligodiacetylene and Thiophene Units: Synthesis and

Ontical Properties

AUTHOR(S): Pilzak, Gregor S.; van Gruijthuijsen, Kitty; van

Doorn, Reindert H.; van Lagen, Barend; Sudhoelter,

Ernst J. R.; Zuilhof, Han
CORPORATE SOURCE: Laboratory of Organic Chemistry,

Laboratory of Organic Chemistry, Wageningen
University, Dreijenplein 8, Wageningen, 6703 HB, Neth.

Oniversity, breijenpieln 8, Wageningen, 8703 Hb, P DURCE: Chemistry--A European Journal (2009), 15(36),

9085-9096, \$9085/1-\$9085/19

CODEN: CEUJED; ISSN: 0947-6539

PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA

DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 151:508432

AB Novel and highly soluble hybrid conjugated organic oligomers consisting of oligodiacetylene and thiophene units have been synthesized in high purity through iterative and divergent approaches based on a sequence of Sonogashira reactions. The series of thiophene-containing oligodiacetylenes and

homocoupled oligodiacetylenes show, both in solution and in the solid state, a strong optical absorption, which is progressively red shifted with increasing chain length. The linear correlation of the absorption maximum with the inverse of conjugation length (CL = number of double and triple bonds) shows that the effective conjugation length of this system is extended up to at least CL = 20. Furthernore, absorption measurements of dropcast thin films display not only a bathochromic shift of the absorption maxima but also a

display not only a bathochronic shift of the absorption maxima but also higher wavelength absorption, which is attributed to increased π - π interactions. The wavelength of the maximum fluorescence emission also increases with CL, and emission is maximal for oligomers with CL = 7-12

(fluorescence quantum yield $\mathbf{0} \mathbf{r} = .\mathsf{apprx}.0.2$). Both longer and shorter oligomers display marginal emission. The calculated Stokes shifts of these planar materials are relatively large (0.4 eV) for all oligomers, and likely due to excitation to the SS state, thus suggesting that the presence of enyre

moieties dominates the ordering of the lowest excited states. The fluorescence lifetimes (tT) are short (Grax = «1 ns) and closely follow the tendency obtained for the fluorescence quantum yield. The anisotropy lifetimes show a near-linear increase with CL in line with highly rigid

oligomers. IT 1192839-79-3P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (synthesis wia iterative Sonogashira coupling and optical properties of hybrid conjugated organic oligomers consisting of oligodiacetylene and thiobene

RN 1192820-79-3 CAPLUS

CN INDEX NAME NOT YET ASSIGNED

()

REFERENCE COUNT: 56 THERE ARE 56 CITED REFERENCES AVAILABLE FOR THIS
RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 2 OF 32 CAPLUS COPYRIGHT 2009 ACS ON SIN ACCESSION NUMBER: 2009:76616 CAPLUS Full-text DOCUMENT NUMBER: 150:167710

TITLE: Push-pull hyperbranched molecules. A theoretical study AUTHOR(S): Ramos, Estrella; Guadarrama, Patricia; Teran, Gerardo;

Fomine, Serguei
CORPORATE SOURCE: Instituto de Investigaciones en Materiales,

Universidad Nacional Autonoma de Mexico, Mexico, 04510, Mex.

04010,

SOURCE: Journal of Physical Organic Chemistry (2009), 22(1),

CODEN: JPOCEE; ISSN: 0894-3230

PUBLISHER: John Wiley & Sons Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

AB The electronic properties of the ground state, unrelaxed and relaxed first excited states of push-pull hyperbranched mois. bearing anion and nitro terminal groups have been studied at BEN/co-pudz/HEF(6-31g(d)) The Publik/co-pudz/HEF(6-31g(d)) and TO-BENS/co-pudz/HEF(6-31g(d)) levels of theory, resp. It was demonstrated that dendritic architecture of push-pull nois. Favors the charge transfer in the excited state compared to linear mois. The possibility of adopting a plane conformation is an important condition for the charge transfer in an excited state. According to the calcus. 1:1 ratio of doors and acceptor groups is another important precondition for the manifestation of strong charge separation in the excited state. In case of excess of nitro groups over the anino, some of the excitations participating in the SO → SI transition favor the charge transfer in the excited state in the opposite directions, thus decreasing the charge separation

II 1107616-71-6 1107616-72-7 1107616-73-8

RL: PRP (Properties)

(electronic properties of ground state, unrelaxed and relaxed first excited states of push-pull hyperbranched mols. bearing amino and nitro terminal groups)

RN 1107616-71-6 CAPLUS

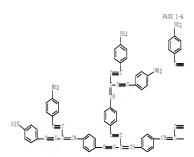
CN Benzenanine, 4,4'-[3-[[4-[5-[4-[4-aaninophenyl]-2-[2-[4-aminophenyl] ethynyl]-1-buten-3-yn-1-yl]phenyl]-3-[(4-nitrophenyl]methylene]-1,4-pentadiyn-1-yl]phenyl]methylene]-1,4-pentadiyne-

PAGE 1-B



RN 1107616-72-7 CAPLUS

ON Benzenanine, 4,4*"[3-[4-[5-[4-[4-(4-aninopheny])-2-[2-(4-aninopheny])-2-[2-(4-benzenanine)]-2-[2-(4-deninopheny])-2-[2-(4-deninopheny])-3-[4-[4-[4-[4-[4-(4-denintropheny])-2-[2-(4-denintropheny])-1-buten-3-yn-1-yl]pheny]]-2-[2-[4-denintropheny]]-2-[2-(4-nitropheny])-2-(2-(4-nitropheny])-2-(2-yl)pheny]]-2-[2-(yl)pheny]]-2-[2-(yl)pheny]]-2-[2-(yl)pheny]-2-[2-(yl)pheny]-2-(yl)



- RN 1107616-73-8 CAPLUS
- CN Benzenamine, 4-[4-[4-(4-nitrophenyl)-2-[2-(4-nitrophenyl)ethynyl]-1-buten-3-yn-1-yl]phenyl]-2-[2-[4-[4-(4-nitrophenyl)-2-[2-(4-nitrophenyl)-2-[2-(4-nitrophenyl)-2-buten-3-yn-1-yl]phenyl]ethynyl]-1-buten-3-yn-1-yl]-(CA INDEX NAME)

PAGE 1-B

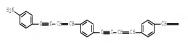
IT 1107615-76-1

RL: PRP (Properties)

(linear analog; electronic properties of ground state, unrelaxed and relaxed first excited states of push-pull hyperbranched mols. bearing amino and nitro terminal groups)

- RN 1107616-76-1 CAPLUS
- CN Benzenanine, 4-[4-[4-[4-[4-[4-[4-(4-nitrophenyl)-1-buten-3-yn-1-yl]phenyl]-1-buten-3-yn-1-yl]phenyl]-3-buten-1-yn-1-yl]phenyl]-3-buten-1-yn-1-yl]- (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



REFERENCE COUNT:

CORPORATE SOURCE:

- 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L7 ANSWER 3 OF 32 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2008:355050 CAPLUS Full-text

DOCUMENT NUMBER: 148:520471

TITLE: Tetrafullerene Conjugates for All-Organic

Photovoltaics

AUTHOR(S): Fernandez, Gustavo; Sanchez, Luis; Veldman, Dirk;

Wienk, Martijn M.; Atienza, Carmen; Guldi, Dirk M.;

Janssen, Rene A. J.; Martin, Nazario Departamento de Quimica Organica, Facultad de Ciencias

Quimicas, Universidad Complutense de Madrid, Madrid,

28040, Spain

SOURCE: Journal of Organic Chemistry (2008), 73(8), 3189-3196

CODEN: JOCEAH; ISSN: 0022-3263

DUDEN: JOUEN: JOSEPH J. S. OVEZ-3203

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 148:520471

AB The synthesis of two new tetrafullerene nanoconjugates in which four 600 units are covalently commected through different #-conjugated oligoners (oligo-prienty-lene ethymylene) and oligo-prienty-lene ethymylene) is described. The photovoltaic response of these 600-based conjugates was evaluated by using them as the only active material in organic solar cells, showing a low photovoltaic performance. Photophys, studies in solution demonstrated a very fast (.apprx.10 ps) describation of the singlet excited state of the central core unit to produce both charge-spentated species (i.e., 661--010mers+-

(C60)3 and C60 centered singlet excited states). The charge-separated state recombines partly to the C60 centered singlet state that undergoes subsequent intersystem crossing. Abtodypys, studies carried out in films support these data, exhibiting long-lived triplet excited states. For both tetrafullerene arrays, the low yield of long-lived charge carriers in thin films accounts for the limited photovoltaic response. On the contrary, utilizing the Oilgotphenylene vinylene) centered precursor aldehyde as an electron donor and antennae unit and mixing with the well-known C60 derivative PCBM, the photophys, studies in films show the formation of long-lived charges. The photovortaic devices constructed from these mixts, showed a relatively high photocurrent of 2 mak/cm2. The sharp contrast between the nanconjugates and the phys, blends tentatively was attributed to improved charge dissociation and the collection of more favorable energy levels in the blends as a result of partial aggression of both of the components.

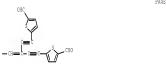
IT 1022991-37-28

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

- (in synthesis of tetrafullerene conjugates for all-organic photovoltaics) RN 1022991-37-2 CAPLUS
- CN 2-Thiophenecarboxaldehyde, 5,5'-[[2,5-bis(hexyloxy)-1,4-phenylene]bis(2,1-ethynediyl-4,1-phenylene[3-[2-(5-formyl-2-thienyl)ethynyl]-3-buten-1-yne-4,1-diyl]]bis- (CA INDEX NAME)

PAGE 1-A

PAGE 1-B



10

58

OS.CITING REF COUNT:

THERE ARE 10 CAPLUS RECORDS THAT CITE THIS RECORD (10 CITINGS)

REFERENCE COUNT:

THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT L7 ANSWER 4 OF 32 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2008:244421 CAPLUS Full-text

DOCUMENT NUMBER: 148:403337

ATTITION (S) .

CORPORATE SOURCE:

TITLE: Triphenylphosphine Incorporation Reactions of Diynyl

Complexes Containing a TpRu(NC) Fragment and Isomerization to Ruthenacyclobuta[b]naphthalene

Arikawa, Yasuhiro; Asayama, Taiki; Tanaka, Chie;

Arikawa, Masuniro; Asayama, Maiki; Manaka, Chie Mashita, Shin-wa; Tsumi, Misako; Ikeda, Kenta;

Umakoshi, Keisuke; Onishi, Masayoshi

Department of Applied Chemistry, Faculty of Engineering, Nagasaki University, Nagasaki, 852-8521,

Japan

SOURCE: Organometallics (2008), 27(6), 1227-1233

CODEN: ORGND7; ISSN: 0276-7333

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 148:403337

AB Nitrosylruthenium arylbutadiynyl complexes having a Tp ligand (Tp = BH(pyrazol-1-vl)3) were prepared, and their reactivities toward PPh3 incorporation in the presence of HBF4.Et20 were described. The PPh3 incorporation of mono(arylbutadiynyl) complex TpRuCl(C.tplbond.C-C.tplbond.C-C6H4Me)(NO) (1) resulted in the β -phosphonicalkenyl complex (E)-[ToRuCl(CH:C(PPh3)-C.tplbond.C- C6H4Me)(NO)]BF4 (2.BF4), whereas when bis(arylbutadiynyl) TpRu(C.tplbond.C-C.tplbond.C-C6H4Me)2(NO) (3) was treated, mono- and bis (β-phosphonioalkenyl) complexes (E)-[TpRu(C.tplbond.C-C.tplbond.C-C6H4Me) (CH:C(PPh3)-C.tplbond.C-C6H4Me) (NO)]BF4 (4.BF4) and (E,E)-[TpRu(CH:C(PPh3)-C.tplbond.C-C6H4Me)2(NO)](BF4)2 (5 (BF4)2) were obtained depending on the reaction conditions. On the other hand, an unsym. mixed (arylbutadiynyl) (3-hydroxyalkynyl) complex, TpRu(C.tplbond.C-C.tplbond.C-C6H4Me) {C.tplbond.CCPh2(OH)} (NO) (6), was allowed to react with PPh3 in the presence of the protic acid to give the α -phosphonicallenyl [TpRu(C.tplbond.C-C.tplbond.C- C6H4Me) {C(PPh3):C:CPh2}(NO)]BF4 (7.BF4). Interestingly, thermal isomerization of 7.BF4 to a ruthena-2-PPh3cyclobuta[b]naphthalene [TpRu{CH(PPh3)[3-Ph-8-(MeC6H4-C.tplbond.C)-C10H4]](NO)]BF4 (8.BF4) was observed

II 1015477-27-69

RL: SPN (Synthetic preparation); PREP (Preparation) (triphenylphosphine incorporation reactions of diwnyl complexes containing pyrazolylboratoruthenium nitrosyl fragment and isomerization to ruthenaxwelobutananthalene

RN 1015477-27-6 CAPLUS

CN Ruthenium(1+), [hydrotris(1H-pyrazolato-KN1)borato(1-)-

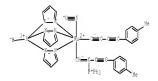
kW2,kW2',kW2''][4-(4-methylphenyl)-1,3-butadiyn-1yl][(1E)-4-(4-methylphenyl)-2-(triphenylphosphonio)-1-buten-3-yn-1yl]nitrosyl-, (CC-6-24)-, tetrafluoroborate(1-) (1:1) (CA INDEX NAME)

CM 1

CRN 1015477-26-5

CMF C49 H40 B N7 0 P Ru

CCI CCS



CM 2

CRN 14874-70-5 CMF B F4 CCT CCS

OS.CITING REF COUNT:

THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD

THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 5 OF 32 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2007:1105260 CAPLUS Full-text

DOCUMENT NUMBER: 148:11306

TITLE: Formation and Structural and Dynamic Features of Atropisomeric n2-Iminoacyl Zirconium Complexes

AUTHOR(S): Spies, Patrick; Kehr, Gerald; Kehr, Seda; Froehlich,

Roland; Erker, Gerhard

Organisch-Chemisches Institut, Universitaet Muenster, CORPORATE SOURCE: Muenster, 48149, Germany

Organometallics (2007), 26(23), 5612-5620 SOURCE:

CODEN: ORGND7; ISSN: 0276-7333

PUBLICATION . American Chemical Society DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 148:11306

AB The Cp2ZrC1(CPh:C(PX2)C.tplbond.CPh] complexes 7a (X = Ph) and 10 (X = C6F5) insert tert-butylisonitrile into the Ir-C(sp2) σ bond to yield the iminoacyl zirconocene complexes, Cp2ZrCl[C(:NCMe3)CPh:C(PX2)C.tplbond.CPh] 13a and 13b. X-ray crystal structure anal. of complexes 13a and 13b revealed a chiral atropisomeric structure with a torsion angle of 74.8(2)° (13a) and 72.9(6)° (13b), resp., around the central ininoacyl/alkenyl C(sp2)-C(sp2) σ bond. In solution an analogous chiral structure is observed. The barrier of interconversion of the enantiomeric atropisomers of 13a and 13b was determined at ΔG , thermod. (327K) = 14.9 ± 0.3 kcal mol-1 (13a) and ΔG , thermod. (325K) =

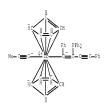
14.8 ± 0.3 kcal mol-1 (13b) by temperature-dependent dynamic NMR spectroscopy. Reaction of 7a and 10 with methyllithium followed by treatment with B(C6F5)3 gave the corresponding cationic zirconocene complexes Cp2Zr+(THF)[CPh:C(PX2)C.tplbond.CPh] [MeB-(C6F5)3] 12a and 12b. These complexes took up 2 mol equiv of tert-butylisonitrile to yield the cationic Ninside m2-iminoacyl zirconocene systems 14a and 14b as isonitrile adducts. The cationic complexes 14a and 14b are also axially chiral. The barriers of enantiomerization (AG.thermod. (288 K) = 13.1 ± 0.3 kcal mol-1 (14a), $\Delta G.$ thermod. (293 K) = 13.4 \pm 0.3 kcal mol-1 (14b)) were also determined by dynamic NMR spectroscopy.

TT 958625.66.06

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (crystal structure; isonitrile insertion reaction into neutral and cationic butenynylzirconocene complexes to give atropisomeric iminoacyl zirconocene complexes)

RN 958635-66-0 CAPLUS

CN Zirconium, bis(η 5-2,4-cyclopentadien-1-yl)[(1E)-2-(diphenylphosphino)-1,4-diphenyl-1-buten-3-yn-1-yl]-1-propyn-1-yl- (CA INDEX NAME)



OS.CITING REF COUNT:

THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD

(1 CITINGS)

REFERENCE COUNT: 60 THERE ARE 60 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 6 OF 32 CAPLUS COPYRIGHT 2009 ACS on STN 2007:995140 CAPLUS Full-text ACCESSION NUMBER:

DOCUMENT NUMBER: 147:448227

TITLE: Convenient synthesis of (1-propynyl)arenes through a

one-pot double elimination reaction, and their

conversion to enymes

ATITHOR (S): An, De-Lie; Zhang, Zhiyang; Orita, Akihiro; Mineyama,

Hidetaka; Otera, Junzo

CORPORATE SOURCE: Department of Chemistry, College of Chemistry and

Chemical Engineering, Hunan University, Changsha,

410082, Peop. Rep. China

SOURCE: Synlett (2007), (12), 1909-1912 CODEN: SYNLES; ISSN: 0936-5214

PUBLISHER: Georg Thieme Verlag

DOCUMENT TYPE: Journal

LANGUAGE: Rnalish

OTHER SOURCE(S): CASREACT 147:448227

AB A series of prop-1-ynyl arenes were prepared by one-pot double elimination reaction of EtSO2Ph, aromatic aldehyde, and ClPO(OEt)2 in THF with a base such as BuLi and tBuOK. A propargyllithium, which was prepared by treatment of propyn-1-yl arene with BuLi in the presence of 1,3-dimethyl-3,4,5,6tetrahydro-2(1H)-pyrimidinone (DMPU), reacted with aromatic aldehyde, C1PO(OEt)2 and t-BuOK to afford 4-arylbut-3-en-1-ynyl arene. Photoluminescence of the enymes thus prepared was recorded both in solution and in the solid state.

IT 951786-78-0P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of propynyl arenes through one-pot double elimination and conversion to envnes)

RN 951766-78-2 CAPLUS

CN Benzene, 1,1'-(1E)-1-buten-3-yne-1,4-diylbis[4-(2-phenylethynyl)- (CA INDEX NAME)

Double bond geometry as shown.



OS.CITING REF COUNT: THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD

THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 7 OF 32 CAPLUS COPYRIGHT 2009 ACS on STN

2007:46877 CAPLUS Full-text ACCESSION NUMBER: DOCUMENT NUMBER: 148:284829

TITLE: Synthesis of smallest unit model of graphite intercalation compound and its possibility

AUTHOR(S): Ogoshi, Sensuke

CORPORATE SOURCE: Department of Applied Chemistry, Faculty of

Engineering, Osaka University, Japan

Asahi Garasu Zaidan Josei Kenkyu Seika Hokoku (2006) SOURCE:

> 01.03.07/1-01.03.07/8 CODEN: AGSHEN: ISSN: 0919-9179

PUBLISHER: Asahi Garasu Zaidan

DOCUMENT TYPE: Journal; (computer optical disk)

LANGUAGE: Japanese OTHER SOURCE(S): CASREACT 148:284829

- AB Graphite is perhaps the simplest layered structure. Many substances can be intercalated between layers of graphite. Upon intercalation, the graphite layers moved apart somewhat due to the intercalated atom. However, the layers still keep parallel each other which would be the key for the formation of intercalation compds. Thus, compds. having two aromatic rings, which can change the distance between the rings and keep parallel to each other, were designed and synthesized. The target compound was 1,8-bis[6-(1-naphthalenyl)-3-hexene-1,5-diynyl]anthracene.
- IT 1007600-95-09
 - RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of bis[(naphthalenyl)hexenediynyl]anthracene (smallest unit model for graphite intercalation compound))

RN 1007602-95-0 CAPLUS

CN Anthracene, 1,8-bis[(3E)-6-(1-naphthalenyl)-3-hexene-1,5-diyn-1-yl]- (CA TMPRY MAMEL

Double bond geometry as shown.

PAGE 1-A

PAGE 1-B



L7 ANSWER 8 OF 32 CAPLUS COPYRIGHT 2009 ACS on STN 2006:82014 CAPLUS Full-text ACCESSION NUMBER:

DOCUMENT NUMBER: 144:334159

TITLE: Light harvesting tetrafullerene nanoarray for organic

solar cells

AUTHOR(S): Atienza, Carmen M.; Fernandez, Gustavo; Sanchez, Luis; Martin, Nazario; Dantas, Ines Sa; Wienk, Martijn M.;

Janssen, Rene A. J.; Rahman, G. M. Aminur; Guldi, Dirk

CORPORATE SOURCE: Departamento de Ouimica Organica, Facultad de Ciencias

Quimicas, Universidad Complutense, Madrid, E-28040,

Snain

Chemical Communications (Cambridge, United Kingdom) SOURCE:

(2006), (5), 514-516

CODEN: CHCOFS; ISSN: 1359-7345 PUBLISHER: Royal Society of Chemistry

DOCUMENT TYPE: Journal

LANGUAGE: English OTHER SOURCE(S): CASREACT 144:334159

- AB A light absorbing m-conjugated oligomer-tetrafullerene nanoarray was synthesized and its photophys. study reveals an intramol, energy transfer. A photovoltaic device fabricated from this nanoarray and poly(3-hexylthiophene) shows an external quantum efficiency of 15% at 500 nm.
- IT 880486-74-8P

RL: PEP (Physical, engineering or chemical process); PRP (Properties); PUR (Purification or recovery); PYP (Physical process); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); RACT (Reactant or reagent)

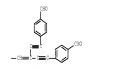
(compound 4; light harvesting tetrafullerene nanoarray for organic solar cells)

RN 880486-74-8 CAPLUS

CN Benzaldehyde, 4,4'-[[2,5-bis(hexyloxy)-1,4-phenylene]bis[2,1-ethynediyl-4,1-phenylene [3-[(4-formylphenyl)ethynyl]-3-buten-1-yne-4,1-diyl]]] bis-

PAGE 1-A

PAGE 1-B



OS.CITING REF COUNT: 16 THERE ARE 16 CAPLUS RECORDS THAT CITE THIS

RECORD (16 CITINGS)

REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 9 OF 32 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2005:1004691 CAPLUS Full-text

DOCUMENT NUMBER: 143:306181

TITLE: Process for preparation of π -conjugated aromatic

ring-containing acetylene derivatives as organic

electroluminescent devices
INVENTOR(S): Sato, Fumie; Takayama, Yuuki

PATENT ASSIGNEE(S): Nissan Chemical Industries, Ltd., Japan

SOURCE: PCT Int. Appl., 82 pp. CODEN: PIXXD2

CODEN: PIXXI
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | | | | | | KIN |) | DATE | | | APPI | LICAT | DATE | | | | | |
|------------|----|------|------|-----|-----|------|------|------|------|-------|------|-------|------|-----|------|-----|-----|-----|
| | | | | | | | - | | | | | | | | | - | | |
| | WO | 2005 | 0851 | A1 | | 2005 | 0915 | | WO 2 | 2005- | JP39 | 50 | | 2 | 0050 | 308 | | |
| | | W: | AE, | AG, | AL, | AM, | AT, | AU, | AZ, | BA, | BB, | , BG, | BR, | BW, | ΒY, | BZ, | CA, | CH, |

CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, NW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, FT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, ME, SN, TD, TG A1 20070802 US 2007-591950 US 20070176164 PRIORITY APPLN. INFO.: JP 2004-65446 A 20040309 WO 2005-JP3950 W 20050308

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT OTHER SOURCE(S): MARPAT 143:306181

GI

AB This invention pertains to a method for producing s-conjugated aromatic ring-containing acetylene derivs. via coupling reaction in the presence of palladium and Ou[1] catalysts. For example, the compound I was prepared in a multi-step synthesis in good yield. The title compds are useful as electroluminescent devices.

II 70810-64-4P 745917-65-5P 746810-63-79 766110-68-6P 385633-95-5P 868683-97-69 86683-97-69 86683-97-69 86684-12-8P 86688-11-8P 86688-11-8P 86688-11-8P 86688-11-8P 86688-11-18-1P 86688-11-18-1P

RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; preparation of $\pi\mbox{-}\mbox{conjugated}$ aromatic ring-containing acetylene

derivs. as organic electroluminescent devices)

RN 740810-64-4 CAPLUS

CN 3-Butyn-2-ol, 4-[6-[(3E)-3-butyl-4-[2-[6-[2-[tris[1-methylethyl)silyl]ethynyl]-3-pyridinyl]ethynyl]-3-hepten-1-yn-1-yl]-3-pyridinyl]-2-methyl- (CA INDEX NAME)

Double bond geometry as shown.



- RN 740810-65-5 CAPLUS
- CN 3-Butyn-2-01, 4-[6-[(3E)-3-butyl-4-[2-[6-[(3E)-3-butyl-4-[2-[6-[2-[tris(1-methylethyl)silyl]ethynyl]-3-pyridinyl]ethynyl]-3-hepten-1-yn-1-yl]-3-pyridinyl]ethynyl]-3-hepten-1-yn-1-yl]-3-pyridinyl]-2-methyl- (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-B

- RN 740810-67-7 CAPLUS
- CN 3-Butyn-2-ol, 2-methyl-4-{5-[(3E)-3-propyl-4-[(5-[[tris(1-methylethyl)silyl]ethynyl]-2-thienyl]ethynyl]-3-hepten-1-yn-1-yl]-2-thienyl]- (CA INDEX NAME)

Double bond geometry as shown.

Me

- RN 740810-68-8 CAPLUS
- CN 3-Butyn-2-ol, 2-methyl-4-[5-[(3E)-3-propyl-4-[[5-[(3E)-3-propyl-4-[[5-[[tris(1-methylethyl)siy]]-2-thienyl]-4-thienyl]-3-hepten-1-yn-1-yl]-2-thienyl]ethynyl]-3-hepten-1-yn-1-yl]-2-thienyl]- (CA INDEX NAME)

Double bond geometry as shown.

$$\underset{\text{De}}{\text{De}} \underbrace{\text{De}} \underbrace{\text$$

PAGE 1-B

- RN 864683-96-5 CAPLUS
- CN 3-Butyn-2-ol, 4-[5-[(3E)-5-ethyl-4-[2-(5-ethynyl-2-thienyl)ethynyl]-3-propyl-3-penten-1-yn-1-yl]-2-thienyl]-2-methyl- (CA INDEX NAME)

Double bond geometry as shown.

$$\underset{\mathsf{He}}{\overset{\mathsf{Me}}{\longrightarrow}} \overset{\mathsf{OB}}{\bigcirc} = \overset{\mathsf{OB}}{\bigcirc} \overset{\mathsf{n-Pr}}{\bigcirc} \overset{\mathsf{n-Pr}}{} \overset{\mathsf{n-Pr}}{\bigcirc} \overset{\mathsf{n-Pr}$$

- RN 864683-97-6 CAPLUS
- CN 3-Butyn-2-ol, 4-[5-[(3E)-4-[2-[5-[(3E)-4-[2-(5-ethynyl-2-thienyl)ethynyl]-3-propyl-3-hepten-1-yn-1-yl]-2-thienyl]-3-propyl-3-hepten-1-yn-1-yl]-2-thienyl]-2-methyl- (CA INDEX NAME)

- RN 864684-01-5 CAPLUS
- CN 3-Butyn-2-ol, 4-[6-[(3E)-3-butyl-4-[2-[6-ethynyl-3-pyridinyl]ethynyl]-3-hepten-1-yn-1-yl]-3-pyridinyl]-2-methyl- (CA INDEX NAME)

Double bond geometry as shown.

- RN 864684-02-6 CAPLUS
- CNI 3-Butyn-2-01, 4-[6-[(3E)-3-butyl-4-[2-[6-[(3E)-3-butyl-4-[2-[6-ethynyl]-3-pyridinyl]ethynyl]-3-hepten-1-yn-1-yl]-3-pyridinyl]-2-methyl- (CA INDEX NAME)

Double bond geometry as shown.

- RN 864684-11-7 CAPLUS
- CN Pyridine, 2-[(1E)-4-(6-hexyl-3-pyridinyl)-1-buten-3-yn-1-yl]-5-[2-(trimethylsilyl)ethynyl]- (CA INDEX NAME)

Double bond geometry as shown.

- RN 864684-12-8 CAPLUS
- CN Pyridine, 5-ethynyl-2-[(1E)-4-(6-hexyl-3-pyridinyl)-1-buten-3-yn-1-yl]-(CA INDEX NAME)

Double bond geometry as shown.

- RN 864684-13-9 CAPLUS
- CN Pyridine, 2-[(1E)-4-(6-hexyl-3-pyridinyl)-1-buten-3-yn-1-yl]-5-[(3E)-4-[5-[2-(trimethylsilyl)ethynyl]-2-pyridinyl]-3-buten-1-yn-1-yl]- (CA INDEX MAME)

~0=C-SiMe3

RN 864684-15-1 CAPLUS

CN Pyridine, 5-ethynyl-2-[(1E)-4-[6-[(1E)-4-(6-hexyl-3-pyridinyl)-1-buten-3-yn-1-yl]-3-pyridinyl]-1-buten-3-yn-1-yl]- (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-B

- RN 864684-18-4 CAPLUS
- CN Pyridine, 2-[(1E)-4-(3-pyridiny1)-1-buten-3-yn-1-y1]-5-[2-(trimethylsily1)ethyny1]- (CA INDEX NAME)

Double bond geometry as shown.

- RN 864684-19-5 CAPLUS
- CN Pyridine, 5-ethynyl-2-[(1E)-4-(3-pyridinyl)-1-buten-3-yn-1-yl]- (CA INDEX NAME)

Double bond geometry as shown.

- RN 864684-31-1 CAPLUS
- CII Benzenanie, N-[4-[(32)-3,4-diproppl-6-[4-[2-[tris(]methylachyl)]31)_athynyl[phenyl]-3-bexene-1,5-diyn-1-yl]phenyl]-4-((32)-3proppl-4-[2-[4-[2-[tris [-a-entylachyl]3-[tyl]_athynyl]]banyl]3-thynyl]-3hepten-1-yn-1-yl]-N-[4-[(38)-3-propyl-4-[2-[4-[2-[tris(]methylachyl)sily]ethynyl[phenyl]athynyl]-3-hepten-1-yn-1-yl]phenyl] (CA INDEX MAD)

Double bond geometry as shown.

PAGE 1-B

- RN 864684-32-2 CAPLUS
- CN Benzenamine, N-(4-((3E)-5-ethyl-4-[2-(4-ethynylphenyl)ethynyl]-3-propyl-3-

 $\label{lem:penten-1-yn-1-yl]} $$ penten-1-yn-1-yl] phenyl]-4-[(3E)-4-[2-(4-ethynyl)phenyl)ethynyl]-3-propyl-3-hepten-1-yn-1-yl]-N-[4-[(3E)-4-[2-(4-ethynyl)phenyl)ethynyl]-3-propyl-3-hepten-1-yn-1-yl] phenyl]- (CA INDEX NAME)$

Double bond geometry as shown.

PAGE 1-B

| IT | 740810-66-6P | 740010-69-9P | 864684-03-79 |
|----|------------------|--------------|--------------|
| | 864684-96-98 | 864684-09-30 | 864684-16-29 |
| | 364634-17-3P | 864684-20-89 | 864684-21-99 |
| | 864684-22-0P | 864684-23-18 | 864684-24-1E |
| | 884884 - 25 - 39 | 864684-26-49 | 36468427SP |
| | 864684-28-69 | 944494-23-7P | 864684-30-03 |
| | 864684-33-3P | | |

RL: DEV (Device component use); IMF (Industrial manufacture); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(preparation of $\pi\mbox{-conjugated}$ aromatic ring-containing acetylene derivs. as organic

electroluminescent devices)

RN 740810-66-6 CAPLUS

butyl-4-[2-[6-[2-[tris(1-methylethyl)silyl]ethynyl]-3-pyridinyl]ethynyl]-3hepten-1-yn-1-yl]-3-pyridinyl]ethynyl]-3-hepten-1-yn-1-yl]-3pyridinyl]ethynyl]-3-hepten-1-yn-1-yl]-3-pyridinyl]-2-methyl- (CA INDEX waxn)

Double bond geometry as shown.

PAGE 1-C

PAGE 1-A

Me Ne

- RN 740810-69-9 CAPLUS
- CII 3-Butyn-2-ol, 4-15-[(38)-4-(2-[5-[(38)-5-ethy]-4-[2-[5-[(38)-5-ethy]-3-progy]-4-(2-[5-[2-[tris(1-nethy]ethy])s])ethyny]]-2-thieny]]ethyny]-3-ponten-1-yn-1-yl]-2-thieny]]ethyny]-3-propyl-3-penten-1-yn-1-yl]-2-thieny][ethyny]-3-propyl-3-pepten-1-yn-1-yl]-2-thieny]]-2-methyl

PAGE 1-C

__Ne

- RN 864684-03-7 CAPLUS
- CN 2-Thiophenecarbonitrile, 5-[2-[5-[13E]-5-ethyl-4-[2-[5-(3-hydroxy-3-methyl-1-butym-1-yl)-2-thienyl]ethynyl]-3-propyl-3-penten-1-yn-1-yl]-2-thienyl]ethynyl]- (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-B

- RN 864684-06-0 CAPLUS
- CN 2,1,3-Benzothiadiazole, 4-[(3E)-3,4-dipropyl-6-[5-[2-[tris(1-msthylsthyl]sily]]-2-thianyl]-3-hazene-1,5-diyn-1-yl]-7-[(3E)-3-propyl-4-[2-[5-[2-[tris(1-msthylsthyl)sily]]sthynyl]-2-thianyl]-3-hapten-1-yn-1-yl]- (CA INDEX NAME)

Double bond geometry as shown.

- RN 864684-09-3 CAPLUS
- CN Thieno[3,4-b]pyrazine, 5-[(3E)-3,4-dipropyl-6-(2-thienyl)-3-hexene-1,5-diyn-1-yl]-2,3-diphenyl-7-[(3E)-3-propyl-4-[2-(2-thienyl)ethynyl]-3-hepten-1-yn-1-yl]- (CA INDEX NAME)

Double bond geometry as shown.

- RN 864684-16-2 CAPLUS
- CN Pyridine, 2-[(1E)-4-[6-[(1E)-4-[6-[(1E)-4-(6-hexyl-3-pyridinyl)-1-buten-3-yn-1-yl]-3-pyridinyl]-1-buten-3-yn-1-yl]-3-pyridinyl]-1-buten-3-yn-1-yl]-5-[2-(trimethylsilyl)ethysyl]- (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A

PAGE 1-B

- RN 864684-17-3 CAPLUS
- CN 3-Pyridinecarbonitrile, 6-[2-[6-[(1E)-4-(6-hexyl-3-pyridinyl)-1-buten-3-yn-1-yl]-3-pyridinyl]ethynyl]- (CA INDEX NAME)

Double bond geometry as shown.

- RN 864684-20-8 CAPLUS
- CN Pyridine, 5-[2-(5-propoxy-2-pyridiny1)ethyny1]-2-[(1E)-4-(3-pyridiny1)-1buten-3-yn-1-y1]- (CA INDEX NAME)

Double bond geometry as shown.

- RN 864684-21-9 CAPLUS
- CN Thiophene, 2-[(3E)-3,4-dipropyl-6-[4-[(3E)-3-propyl-4-[2-[5-[2-[tris(1-methylethyl]silyl]ethynyl]-2-thienyl]ethynyl]-3-hepten-1-yn-1-yl]phenyl]-3-hexane-1,5-diyn-1-yl]-5-[2-[tris(1-methylethyl)silyl]ethynyl]- (CA INDEX NAME)

Double bond geometry as shown.

n-Pr B C=C Si(Pr-i)3

- RN 864684-22-0 CAPLUS
- CM Benzene, 1-[(35)-3,4-dipropyl-6-[4-[2-[tris]]methylethylsilyl]ethyyl]phenyl]-3-bezene-1,3-diyn-1-yl]-4-[(35)-3-propyl4-[2-[4-[2-[tris][1-nethylethyl]silyl]ethyyl]phenyl]ethyyl]-3-hepten-1-yn1-yl]- (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-B

- RN 864684-23-1 CAPLUS
- CN Thiophene, 2-[(3E)-3,4-dipropyl-6-[4-[2-[tris]1-methylethyl]stlyl]ethynyl]phenyl]-3-hexene-1,5-diyn-1-yl]-5-[(3E)-3-propyl-4-[2-[4-[2-[tris]1-methylethyl]silyl]ethynyl]phenyl]ethynyl]-3-hepten-1-yn-1-yl]- (CA INDEX NAMC)

RN 864684-24-2 CAPLUS

CN Silane, [oxybis[4,1-phenylene[(3E)-3,4-dipropyl-3-hexene-1,5-diyne-6,1-diyl]-4,1-phenylene-2,1-ethynediyl]]bis[tris(1-methylethyl)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

- RN 864684-25-3 CAPLUS
- CN 2,2'-Bithiophene, 5-[(38)-3,4-dipropyl-6-[4-[2-[tris]1-methylethylisily]] ethynyl]phenyl]-3-hexene-1,5-diyn-1-yl]-5'-[(38)-3-propyl-4-[2-[4-[2-[tris[1-methylethyl]silyl]ethynyl]phenyl]ethynyl]-3-heyten-1-yn-1-yl]- (CL NUEK NAME)

Double bond geometry as shown.

RN 864684-26-4 CAPLUS

CN Naphthalene, 2-[(3E)-3,4-digropyl-6-[4-[2-[tris(1-methylethyl)silyl]ethynyl]phenyl]-3-bexene-1,5-diyn-1-yl]-6-[(3E)-3-gropyl-4-[2-[4-[2-[tris(1-methylethyl)silyl]ethynyl]phenyl]ethynyl]-3-heptan-1-yn-1-yl]- (CA INDEX NAME)

Double bond geometry as shown.

- RN 864684-27-5 CAPLUS
- CM Anthracene, 9-[(3E)-3,4-dipropyl-6-[4-[2-[tris[1-methylethyl]silyl]ethyyl]phenyl]-3-bexene-1,5-diyn-1-yl]-10-[(3E)-3-propyl-4-[2-[4-[2-[tris[1-methylethyl]silyl]ethynyl]phenyl]ethynyl]-3-hepten-1-yn-1-yl]- (CR INDEX NAME)

- RN 864684-28-6 CAPLUS
- CN 2,1,3-Benzothiadiazole, 4-[(35)-3,4-dipropyl-6-[4-[2-[tris[1-methylethyl]sily]]ethynyl]phenyl]-3-bexene-1,5-diyn-1-yl]-7-[(35)-3-propyl-4-[2-[4-[2-[tris[1-methylethyl]sily]]ethynyl]phenyl]ethynyl]-3-hepten-1-yn-1-yl]- (CA IDEX NAWS)

Double bond geometry as shown.

- RN 864684-29-7 CAPLUS
- CN Pyridazine, 3-[(3E)-3,4-dipropyl-6-[4-[2-[tris[1-methylethyl]si]y]]bethyyl]phenyl]-3-hexene-1,5-diyn-1-yl]-6-[(3E)-3-propyl-4-[2-[4-[2-[tris[1-methylethyl]si]y]]ethyyl]phenyl]ethynyl]-3-hepten-1-yn-1-yl]- (CA_NDEX_NAWS)

Double bond geometry as shown.

- RN 864684-30-0 CAPLUS
- CN Benzers, 1-(135)-3,4-dipropyl-6-[4-[2-[tris]1methylethyl]silyl]sthynyl]phenyl]-3-hexene-1,5-diyn-1-yl]-3-[(35)-5-ethyl-3-propyl-4-[2-[4-[2-[tris]1-methylethyl]silyl]ethynyl]phenyl]ethynyl]-3penten-1-yn-1-yl]-5-[(35)-3-propyl-4-[2-[4-[2-[tris]1methylethyl]silyl]ethynyl]phenyl]ethynyl]-3-hepten-1-yn-1-yl]- (CA INDEX NAME)

Double bond geometry as shown.

- RN 864684-33-3 CAPLUS

PAGE 1-A

REFERENCE COUNT: THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 10 OF 32 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2005:354187 CAPLUS Full-text

DOCUMENT NUMBER: 143:333

TITLE: Cytotoxicities, cell cycle and caspase evaluations of

1,6-diarv1-3(Z)-hexen-1,5-divnes, 2-(6-aryl-3(Z)-hexen-1,5-diynyl)anilines and their

derivatives

AUTHOR(S): Lin, Chi-Fong; Lo, Yu-Hsiang; Hsieh, Ming-Chu; Chen,

Yi-Hua; Wang, Jeh-Jeng; Wu, Ming-Jung

CORPORATE SOURCE: School of Chemistry, Kaohsiung Medical University,

Kaohsiung, Taiwan

SOURCE: Bicorganic & Medicinal Chemistry (2005), 13(10),

3565-3575

CODEN: BMECEP: ISSN: 0968-0896

PUBLISHER: Elsevier Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English CASREACT 143:333 OTHER SOURCE(S):

- AB A series of compds, showed growth inhibition effects on a full panel of 60 human cancer cell lines, and most of the average IC50 values of the indicated analogs were from <0.01 to 96.6 µM, in which a 2-thienyl analog and the thioanisole analog revealed the highest cytotoxic activity with the cancer cell lines at 10-7M concentration range. During the cell cycle anal., a moderate to high apoptotic progress induction was shown by several compared with the control, which 2-(6-(2-thienyl)-3(Z)-hexen-1,5-diynyl)aniline (I) showed the highest apoptotic effect. I and the thioanisole analog displayed a significant G2/M phase arrest in the cell growth cycle compared with other derivs., which the proportions of the G2/M phase cells were accumulated to 71.5% and 82.6%, resp. Moreover, the colorimetric assay of the I and the thioanisole analog also provided advanced evidence to the relationship between the compds. and the caspase-3 enzyme, which was one of the major promoters of apoptotic effect.
- IT 852619-13-78

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(cytotoxicities, cell cycle and caspase evaluations of

1,6-diaryl-3(Z)-hexen-1,5-diynes,

2-(6-aryl-3(Z)-hexen-1,5-diynyl)anilines and their derivs.)

RN 852619-13-7 CAPLUS

CN Benzenamine, 2,2'-[1,4-phenylenedi-(3Z)-3-hexene-1,5-diyne-6,1-diyl]bis-(9CI) (CA INDEX NAME)

OS.CITING REF COUNT: 15 THERE ARE 15 CAPLUS RECORDS THAT CITE THIS

RECORD (15 CITINGS)

REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 11 OF 32 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2004:832644 CAPLUS Full-text

DOCUMENT NUMBER: 142:38113

TITLE: Site-Selective Monotitanation of Dialkynylpyridines and Its Application for Preparation of Highly

Fluorescent %-Conjugated Oligomers

AUTHOR(S): Takayama, Yuuki; Hanazawa, Takeshi; Andou, Tomohiro;

Muraoka, Kenji; Ohtani, Hiroyuki; Takahashi, Mizuki;

Sato, Fumie

Department of Biomolecular Engineering, Tokyo CORPORATE SOURCE:

Institute of Technology, Midori-ku, Yokohama, Kanagawa, 226-8501, Japan

Organic Letters (2004), 6(23), 4253-4256

SOURCE: CODEN: ORLEF7; ISSN: 1523-7060

American Chemical Society PUBLISHER:

DOCUMENT TYPE: Journal English LANCHACE ·

OTHER SOURCE(S): CASREACT 142:38113

AB Reaction of Ti(0-i-Pr)4/2i-PrMgCl reagent with 2,n-

bis[(trimethylsilyl)ethynyl]pyridines, where n is 3, 4, 5, and 6, or with 3,4bis[(trimethylsilyl)ethynyl]pyridines, proceeded with excellent siteselectivity to afford the corresponding monotitanated complex. Synthetic application of the reaction was demonstrated by an efficient preparation of π conjugated oligomers having pyridine and enyme units alternately, which possess intense blue fluorescence emission. Thus, reaction of 2,3bis[(trimethylsilyl)ethynyl]pyridine with Ti(O-i-Pr)4/2i-PrMgCl reagent in Et20 gave 84% (Z)-2-[2-(trimethylsilyl)ethenyl]-3-[(trimethylsilyl)ethynyl]pyridine.

IT 805240-17-9F 905340-19-0P

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and site-selective monotitanation of dialkynylpyridines and

its application for preparation of highly fluorescent pi-conjugated oligomers)

RN 805240-17-9 CAPLUS

CN Pyridine, 2-[(1E)-4-[6-(1E)-1-tetradecen-3-yn-1-yl-3-pyridinyl]-1-buten-3yn-1-yl]-5-[2-(trimethylsilyl)ethynyl]- (CA INDEX MAME)

Double bond geometry as shown.

-SiMe3

RN 805240-18-0 CAPLUS

CN Pyridine, 2-[(1E)-4-[6-[(1E)-4-[6-(1E)-1-tetradecen-3-yn-1-yl-3-pyridinyl]-1-buten-3-yn-1-y1]-3-pyridinyl]-1-buten-3-yn-1-y1]-5-[2-(trimethylsily1)ethyny1]- (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-B

IT 805040-19-19

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and site-selective monotitanation of dialkynylpyridines and

application for preparation of highly fluorescent pi-conjugated oligomers)

RN 805240-19-1 CAPLUS

CN Pyridine, 2-[(1E)-4-[6-[(1E)-4-[6-[(1E)-4-[6-(1E)-1-tetradecen-3-yn-1-yl-3pyridinyl]-1-buten-3-yn-1-yl]-3-pyridinyl]-1-buten-3-yn-1-yl]-3-pyridinyl]-1-buten-3-yn-1-y1]-5-[2-(trimethylsily1)ethyny1]- (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A

PAGE 1-B PAGE 1-A

OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD

(2 CITINGS)

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 12 OF 32 CAPLUS COPYRIGHT 2009 ACS on SIN ACCESSION NUMBER: 2004:566840 CAPLUS <u>Full-text</u> DCCUMENT NUMBER: 141:261152

TITLE: $\pi ext{-Conjugated Dendrimers Based on}$

Bis(enediynyl)benzene Units
AUTHOR(S): Hwang, Gil Tae; Kim, Byeang Hyean

CORPORATE SOURCE: National Research Laboratory, Department of Chemistry,

Division of Molecular and Life Sciences, Pohang University of Science and Technology, Pohang, 790-784,

S. Korea

SOURCE: Organic Letters (2004), 6(16), 2669-2672

CODEN: ORLEF7; ISSN: 1523-7060
PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

AB We have synthesized a new family of n-conjugated dendrimers that are based on bis(enediynyl)benzene units by using both divergent and convergent approaches. The compds, at all three generations have strong bluish-green fluorescence, especially the third-generation dendrimer, which has the highest extinction coefficient and quantum efficiency in this series.

IT 754203-16-4P 754233-18-6D

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reacent)

(convergent and divergent synthesis of π -conjugated dendrimers based on bis(enediynyl)benzene units)

RN 754233-16-4 CAPLUS

CN Benzene, 1,4-bis[4-[4-[4-[4-(2-2-dibromoethenyl)]phenyl]-2-[[4-(2,2-dibromoethenyl)]phenyl]-2-[buten-3-ywyl]phenyl]-2-[[4-(4-(2,2-dibromoethenyl)]phenyl]-2-[[4-(2,2-dibromoethenyl)]phenyl]-buten-3-ywyl]phenyl]ethynyl]-1-buten-3-ywyl]phenyl]ethynyl]-1-buten-3-ywyl]phenyl]ethynyl]-1-buten-3-ywyl]phenyl]ethynyl]-1-buten-3-ywyl]phenyl]ethynyl]-1-buten-3-ywyl]phenyl]ethynyl]-1-buten-3-ywyl]phenyl]ethynyl]-1-buten-3-ywyl]phenyl]ethynyl]-1-buten-3-ywyl]phenyl]ethynyl]-1-buten-3-ywyl]phenyl]ethynyl]-1-buten-3-ywyl]-1-buten

PAGE 1-B

RN 754233-18-6 CAPLUS

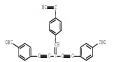
CN Benzaldehyde, 4,4'-[[3-[[4-[4-[4-[4-[4-formylphenyl]-2-[(4-formylphenyl) ethynyl]-1-buten-3-nyyl]phenyl]-2-[[4-[4-[4-formylphenyl]-2-[4-formylphenyl]-1-butyn]-1-buten-3-nyyl]phenyl]-1-buten-3-nyyl]phenyl]phenyl]phenyl]phenyl]-1-buten-3-nyyl]phenyl]phenyl]phenyl]-1-3-buten-1-yne-4,1-diyl]]pis-[9[3] (CA INDEX MANE)

IT 006183-75-1

RL: RCT (Reactant); RACT (Reactant or reagent)

(in convergent approach; convergent and divergent synthesis of π -conjugated dendrimers based on bis(enediynyl)benzene units)

- RN 206181-75-1 CAPLUS
- CN Benzaldehyde, 4,4'-[3-[(4-ethynylphenyl)methylene]-1,4-pentadiyne-1,5-diyl]bis- (CA INDEX NAME)



OS.CITING REF COUNT: 17 THERE ARE 17 CAPLUS RECORDS THAT CITE THIS

RECORD (17 CITINGS)

REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

17 ANSWER 13 OF 32 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2004:480115 CAPLUS Full-text

DOCUMENT NUMBER: 141:190674

TITLE: Synthesis of Conjugated Oligomers Having Aromatic and

Enediyne Units Alternately in the Backbone that Show

Intense Fluorescence Emission

AUTHOR(S): Nakano, Yuuki; Ishizuka, Kenichi; Muraoka, Kenji; Ohtani, Hiroyuki; Takayama, Yuuki; Sato, Fumie

CORPORATE SOURCE: Department of Biomolecular Engineering, Tokyo
Institute of Technology, Midori, Yokohama, Kanagawa,

226-8501, Japan

SOURCE: Organic Letters (2004), 6(14), 2373-2376

CODEN: ORLEF7: ISSN: 1523-7060

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

LANGUAGE: English
OTHER SOURCE(S): CASREACT 141:190674

CT

AB Synthesis and fluorescence properties of π -conjugated compds. I (n = 1 - 3; X = 1,4-phenylene, 2,5-pyridine, 2,5-thiophene; R = n-Pr, n-Bu) having alternately an aromatic or heteroarom. ring and an enedlyne unit in the backbone are described.

IT 780610-61-19 740810-62-2P 740810-64-4P 740810-65-5P 740810-61-7P 740810-68-89

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and absorption and fluorescence spectra of conjugated

having aromatic (or heteroarom.) and enedigne units alternately in the backbone)

- RN 740810-61-1 CAPLUS
- CN 3-Butyn-2-o1, 2-methyl-4-[4-[(3E)-3-propyl-4-[2-[4-[2-[tris(1-methylethyl)sily]]ethynyl]phenyl]ethynyl]-3-hepten-1-yn-1-yl]phenyl]- (CA INCEX NAME)

Double bond geometry as shown.

PAGE 1-B

- RN 740810-62-2 CAPLUS
- CN 3-Butyn-2-ol, 2-methyl-4-[4-[(3E)-3-propyl-4-[[4-[(3E)-3-propyl-4-[[4-[[tris(1-methylethyl)silyl]ethynyl]phenyl]ethynyl]-3-hepten-1-yn-1yl]phenyl]ethynyl]-3-hepten-1-yn-1-yl]phenyl]- (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-B

- RN 740810-64-4 CAPLUS
- CN 3-Butyn-2-ol, 4-[6-[(3E)-3-butyl-4-[2-[6-[2-[tris[1-methylethyl)silyl]ethynyl]-3-pyridinyl]ethynyl]-3-hepten-1-yn-1-yl]-3-pyridinyl]-2-methyl- (CA INCEK NAME)

Double bond geometry as shown.

PAGE 1-B



- RN 740810-65-5 CAPLUS
- CN 3-Butyn-2-ol, 4-[6-[(3E)-3-butyl-4-[2-[6-[(3E)-3-butyl-4-[2-[6-[2-[tris(1-methylethyl)silyl]ethynyl]-3-pyridinyl]ethynyl]-3-hepten-1-yn-1-yll-3-pyridinyl]ethynyl]-3-hepten-1-yn-1-yll-3-pyridinyl]ethynyl]-3-hepten-1-yn-1-yll-3-pyridinyl]-2-methyl- (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-B

RN 740810-67-7 CAPLUS

CN 3-Butyn-2-ol, 2-methyl-4-[5-[(3E)-3-propyl-4-[(5-[[tris(1-methylethyl)sily1]ethynyl]-2-thienyl]ethynyl]-3-hepten-1-yn-1-yl]-2-thienyl]- (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-B

- RN 740810-68-8 CAPLUS
- CN 3-Butyn-2-o1, 2-methyl-4-[5-[(3E)-3-propyl-4-[[5-[(3E)-3-propyl-4-[[5-[(3E)-3-propyl-4-[[5-[(1E)-3-propyl-4-[[5-([3E)-3-propyl-4-[]5-([5E)-3-[]5-([5E)-3-[]5-

Double bond geometry as shown.

$$\underbrace{\text{Me}}_{\text{De}} \underbrace{\text{Oe}}_{\text{De}} \underbrace{\underbrace{\text{n-Pr}}_{\text{n-Pr}}}_{\text{n-Pr}} \underbrace{\text{n-Pr}}_{\text{n-Pr}} \underbrace{\underbrace{\text{n-Pr}}_{\text{n-Pr}}}_{\text{n-Pr}} \underbrace{\text{n-Pr}}_{\text{n-Pr}}$$

PAGE 1-B

II 740810-63-3P 740810-66-6P 740810-69-9P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and absorption and fluorescence spectra of conjugated oligomers

having aromatic (or heteroarom.) and enedigne units alternately in the backbone)

- RN 740810-63-3 CAPLUS
- CN 3-Butyn-2-ol, 2-methyl-4-[4-[(3E)-3-propyl-4-[[4-[(3E)-3-propyl-4-[[4-

[(3E)-3-propyl-4-[(4-[(tris(1-methylethyl)sily]]ethynyl]phenyl]ethynyl]-3-hepten-1-yn-1-yl]phenyl]ethynyl]-3-hepten-1-yn-1-yl]phenyl]- (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A

PAGE 1-C



- RN 740810-66-6 CAPLUS
- ON 3-Butyn-2-0., 4-[6-[138]-3-butyl-4-[2-[6-[138]-3-butyl-4-[2-[6-[138]-3-butyl-4-[2-[6-[138]-3-butyl-4-[2-[6-[2-[138]-3-butyl-4-[2-[6-[2-[138]-3-butyl-4-[2-[6-[2-[138]-3-butyl-4-[2-[4-1]-3-butyl-3-

Double bond geometry as shown.

PAGE 1-A

PAGE 1-C



RN 740810-69-9 CAPLUS

CN 3-Bittyr-2-cl, 4-[5-[38]-4-[2-[5-[38]-5-ethyl-4-[2-[5-[38]-5-ethyl-3-propyl-4-[2-[5-[2-[tris(1-methylethyl)sityl]ethynyl]-2-thienyl]ethynyl]-3-propyl-3-penten-1-yn-1-yl]-2-thienyl]ethynyl]-3-propyl-3-penten-1-yn-1-yl]-2-thienyl]ethynyl]-3-propyl-3-hepten-1-yn-1-yl]-2-thienyl]ethynyl]-3-propyl-3-hepten-1-yn-1-yl]-2-thienyl]-2-methyl- (CA THEEK NAME)

Double bond geometry as shown.

A-Pr 3 C= C 3 C= C 3 C 5 D 6

PAGE 1-C

OS.CITING REF COUNT: 20 THERE ARE 20 CAPLUS RECORDS THAT CITE THIS

RECORD (20 CITINGS)

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

17 ANSWER 14 OF 32 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2004:382959 CAPLUS Full-text

DOCUMENT NUMBER: 141:88772

TITLE: Electrochemical and theoretical study of a family of

fully conjugated dendritic oligomers

AUTHOR(S): Osorio, Gabriela; Frontana, Carlos; Guadarrama,

Patricia; Frontana-Uribe, Bernardo A.
CORPORATE SOURCE: Instituto de Quimica, UNAM, Circuito Exterior Ciudad

Universitaria, Mexico, 04510, Mex.

SOURCE: Journal of Physical Organic Chemistry (2004), 17(5),

439-447

CODEN: JPOCEE: ISSN: 0894-3230

PUBLISHER: John Wiley & Sons Ltd.
DOCUMENT TYPE: Journal

LANGUAGE: English

AB Novel dendritic oligomers of B.B-dibromo-4-ethynylstyrene and formyl-4ethynylstyrene were electrochem. and theor. studied to gain a better insight into their redox behavior. Correlations between calculated ionization and exptl. oxidation potentials (anodic peak potentials) were established. The best correlation was obtained when two important effects are considered in the theor. calcns., probing their strong influence: (a) structural reaccommodation in the formed radical cation and (b) solvation effects. The effect of dendritic terminal groups (dibromovinyl and formyl groups) was also analyzed. A different redox behavior was observed for these two terminal groups, presumably due to a difference in their oxidation mechanisms. A global chemical transformation for the oxidation of dibromovinyl-terminated oligoners was proposed, providing a satisfactory explanation of the electrochem, behavior within this family of (presence of adsorptive phenomena). Taking these results into account, it is possible to explain how the cation-radical species formed in these conjugated dendritic oligomers behave when cyclic voltammetry technique is applied. IT 716327-83-8 716327-30-1 716327-91-2

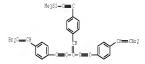
Ri: CPS (Chemical process); PRU (Formation, unclassified); PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); FORM (Formation, nonpreparative); PROC (Process); RACT (Reactant or reagent)

(electrochem, and theor, study of fully conjugated dendritic oligomers family)

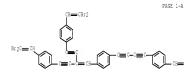
RN 716327-89-8 CAPLUS

CN Silane, [[4-[4-[4-(2,2-dibromoethenyl)phenyl]-2-[[4-(2,2-

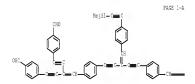
dibromoethenyl)phenyl]ethynyl]-1-buten-3-ynyl]phenyl]ethynyl]trimethyl-, radical ion(1+) (9CI) (CA INDEX NAME)



- RN 716327-90-1 CAPLUS
- CN Berzene, 1,1'-[1,3-butadiyne-1,4-diyl]bis[4-[4-[4-[2,2-dibromoethenyl]phenyl]-2-[[4-[2,2-dibromoethenyl]phenyl]-1-buten-3-ynyl]-, radical ion[1+] (9CI) (CA INDEX NAME)



- RN 716327-91-2 CAPLUS
- CN Berzaldehyde, 4,4'-[[3-[[4-[(trinethylsilyl)ethynyl]phenyl]nethylene]-1,4-pentadiyna-1,5-diyl]bis[4,1-phenylene[3-[(4-formylphenyl)ethynyl]-3-buten-1-yne-4,1-diyl]]bis-, radical ion(1+) (9CI) (CA INDEX NAME)



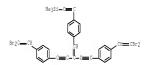


IT 200181-72-8 206131-74-0 206181-76-0

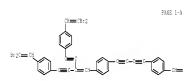
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)

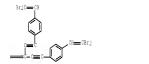
(electrochem. and theor. study of fully conjugated dendritic oligomers family)

- RN 206181-72-8 CAPLUS
- CN Silane, [[4-[4-(4-(2,2-dibronosthenyl)phenyl]-2-[[4-(2,2-dibronosthenyl)phenyl]ethynyl]-1-buten-3-ynyl]phenyl]ethynyl]trimethyl-(9CI) (CA INGEX NAME)

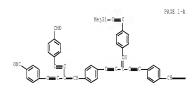


- RN 206181-74-0 CAPLUS
- CN Benzene, 1,1'-[1,3-butadiyne-1,4-diyl)bis[4-[4-[4-(2,2-dibromoetheryl)phenyl]-2-[[4-(2,2-dibromoetheryl)phenyl]-thuten-3-yryl]- (9CI) (CA INDEX NAME)



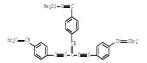


- RN 206181-76-2 CAPLUS
- CN Benzaldehyde, 4,4'-[[3-[[4-[[trimethylsilyl]ethynyl]phenyl]methylene]-1,4pentadiyne-1,5-diyl]bis[4,1-phenylene[3-[[4-formylphenyl]ethynyl]-3-buten1-yme-4,1-diyl]]]bis- [9CI) (CA INDEX NAME)

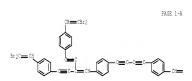




- IT 717144-23-5 717144-24-6 717144-05-7
 - RL: FMU [Formation, unclassified); PRP (Properties); RCT (Reactant); FORM (Formation, nonpreparative); RACT (Reactant or reagent) (electrochem. and theor. study of fully conjugated dendritic oligomers
- family) RN 717144-23-5 CAPLUS
- CN Silane, [[4-[4-[4-(2,2-dibromoethenyl]phenyl]-2-[[4-[2,2-dibromoethenyl]phenyl]-1-buten-3-ynyl]phenyl]ethynyl]trimethyl-, radical ion[1-) (9CI) (CA INDEX NAME)

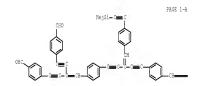


- RN 717144-24-6 CAPLUS
- CN Benzene, 1,1'-[1,3-butadiyne-1,4-diyl)bis[4-[4-[4-(2,2-dibromoethenyl)phenyl]-2-[[4-(2,2-dibromoethenyl)phenyl]-1-buten-3-ynyl]-, radical ion[1-) (9CI) (CA INDEX NAME)



PAGS 1-8

- RN 717144-25-7 CAPLUS
- CN Benzaldehyde, 4,4'-[[3-[[4-[(trimethylsilyl)ethynyl]phenyl]methylene]-1,4pentadiyne-1,5-diyl]bis[4,1-phenylene]3-[(4-fcrmylphenyl)ethynyl]-3-buten1-yne-4,1-diyl]]bis-, radical ion(1-) (9CI) (CA INDEX NAME)





OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD

REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 15 OF 32 CAPLUS COPYRIGHT 2009 ACS on STM ACCESSION NUMBER: 2004:328526 CAPLUS Full-text

DOCUMENT NUMBER: 141:54000

TITLE: Solid-phase synthesis of oligo(triacetylene)s and

oligo(phenylenetriacetylene)s employing Sonogashira and Cadiot-Chodkiewicz-type cross-coupling reactions

AUTHOR(S): Utesch, Nils F.; Diederich, Francois; Boudon, Corinne; Gisselbrecht, Jean-Paul; Gross, Maurice

CORPORATE SOURCE: Laboratorium fuer Organische Chemie, ETH-Hoenggerberg,

HCI, Zurich, CH-8093, Switz.

SOURCE: Helvetica Chimica Acta (2004), 87(3), 698-718

CODEN: HCACAV; ISSN: 0018-019X
PUBLISHER: Verlag Helvetica Chimica Acta

DOCUMENT TYPE: Journal LANGUAGE: English OTHER SOURCE(S): CASREACT 141:54000

AB The polymer-supported synthesis of poly(triacetylene)-derived monodisperse oligomers is described, using PdO-catalyzed Sonogashira and Cadiot-Chodkiewicz-type cross-couplings as the key steps in the construction of the

acetylenic saffoids. Merrifield resin functionalized with a 1-(4-iodoaryl)triazene linker was chosen as the polymeric support. The linker

selection was made based on the results of several model studies in the liquid phase. For the solid-support synthesis of p-

I[CGH4C.tplbond.CC(CH2OSIMe2CWe3]:C(CH2OSIMe2CWe3).C.tplbond.C]nSiMe3 [I, n=2-4] a set of only three reactions was required: (i) P6D-catalyzed Sonogashira cross-coupling, (ii) Me3Si-alkyne deprotection by protodesilylation, and (iii) cleavage of the linker with liberation of I. The longest-wavelength absorption maxima of I [n=1-4] shift bathochromically with increasing oligorarie

length, from λ max 337 nm (I, n = 1) to 384 nm (I, n = 4). Based on the electronic absorption data, the effective conjugation length (ECL) of the oligic/phenylene triacetylene)s is estimated to involve at least four monomer units and 40 C-atoms. α -Electron conjugation in these oligomers is less efficient than in

Me3Si[C6H4C.tplbond.CC(CH2OSiMe2CMe3):C(CH2OSiMe2CMe3)C.tplbond.C] nSiMe3 (II) due to poor transmittance of \(\bar{\pi} \)-electron delocalization by the Ph rings

inserted into the oligomeric backbors. Similar conclusions were drawn from the electrochem, properties of the two oligomeric series as determined by cyclic (CV) and rotating-disk voltammetry. In sharp contrast to II, I are strongly fluorescent, with the highest quantum yield $\Phi v = 0.69$ measured for I [n = 3]. Whereas the Songashira cross-coupling on solid support proceeded smothly, optimal conditions for alkyme-alkyme cross-coupling reactions employing PdO-satalyzed Cadiot-Chodklewicz conditions still remain to be developed.

IT 554459-62-08 554459-63-3F 554459-64-2P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (solid-phase synthesis of oligo(triacetylene)s and oligo(phenylenetriacetylene)s by Sonogashira and Cadiot-Chodkiewicz cross-coupling reactions)

RN 554459-62-0 CAPLUS

CN 4,9-Dioxa-3,10-disiladodec-6-ene, 6-[[4-[[3B]-3,4-bis[[[[1,1-dimethylethyl]dimethylsily]loxy]nethyl]-6-[4-idotpheryl]-3-hexene-1,5-diynyl]phanyl]ethynyl]-2,2,3,3,10,10,11,11-octamethyl-7-[[trzinethylsily]]ethynyl]-, (65)- [901] (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-B

~1

RN 554459-63-1 CAPLUS

CN 4,9-Dioxa-3,10-disiladodes-6-ene, 6-[[4-[3E]-6-[4-[(3E)-3,4-bis[[[1,1-distethylethyl]dinsthylsthyl]oxy]neshyl]-6-(4-lodophanyl)-3-hexene-1,5-diynyl]phenyl]-3,4-bis[[[(1,1-distethylethyl]dinsthylsilyl]oxy]nethyl]-3-hexene-1,5-diynyl]phenyl]ethynyl]-2,2,3,3,10,10,11,11-ottanethyl-7-[(trinethylsilyl]ethynyl]-, (6E)-[9C] (CA IDEX NAME)

Double bond geometry as shown.

PAGE 1-B

RN 554459-64-2 CAPLUS

CN 4,9-Dioxa-3,10-disiladodec-6-ene, 6-[[4-[13E]-6-[4-[3E]-3,4-bis[[[1,1-dinethylethyl]-6-[4-[dodpeny]]-3-hexane-1,5-diynyl]phenyl]-3,4-bis[[[(1,1-dinethylethyl]-dinethylsilyl]owy]nethyl]-3-hexane-1,5-diynyl]phenyl]-6-hywl]-6-[4-[13E]-3,4-bis[[[(1,1-dinethylethyl]-6-hywl]-3-hexane-1,5-diynyl]phenyl]ethynyl]-7-[4-[13E]-3,4-bis[[[(1,1-dinethylethyl]-6-hywl]-6-hywl]-6-(trinethylsilyl]-3-hexane-1,5-diynyl]phenyl]ethynyl]-2,2,3,3,10,10,11,11-octamethyl-, (6E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-B

PAGE 1-A

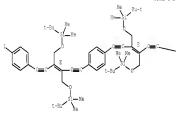
II 764916-39-5P

RL: SFN (Synthetic preparation); PREP (Preparation) (solid-phase synthesis of oligo(triacetylene)s and oligo(phenylenetriacetylene)s by Sonogashira and Cadiot-Chodkiewicz cross-coupling reactions)

RN 704916-29-0 CAPLUS

CN 4,9-Dioxa-3,10-disiladodec-6-ene, 6,6'-(1,4-phenylenedi-2,1-ethynediy1)bis[7-[(4-iodophenyl)ethynyl]-2,2,3,3,10,10,11,11-octamethyl-, (6E,6'E)- (9CI) (CA INDEX NAME)





PAGE 1-B



OS.CITING REF COUNT: 6 THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD

(6 CITINGS)

REFERENCE COUNT: 93 THERE ARE 93 CITED REFERENCES AVAILABLE FOR THIS

RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 16 OF 32 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2003:491916 CAPLUS Full-text

DOCUMENT NUMBER: 139:395637

TITLE: Synthesis of differentially protected/functionalised acetylenic building blocks from p-benzoquinone and

their use in the synthesis of new enedignes
Sankararaman, Sethuraman; Srinivasan, Manivannan

AUTHOR(S): Sankararaman, Sethuraman; Srinivasan, Manivannan
CORPORATE SOURCE: Department of Chemistry, Indian Institute of
Technology Madras, Madras, 600 036, India

Organic & Biomolecular Chemistry (2003), 1(13),

2388-2392

CODEN: OBCRAK; ISSN: 1477-0520

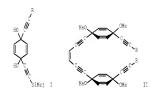
PUBLISHER: Royal Society of Chemistry

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 139:395637

GI

SOURCE:



28 Sequential addition of two different lithium acetylides to p-benzoquinone yielded diasteroweric mixts. of 1,4-diethyrylcyclohexa-2,5-diene-1,4- diels I [8 = (MeCRISSI, [E0:Occ]) with different protective/functional groups on the two ethynyl groups. Selective monodeprotection of the di-Me ethers of I to the corresponding terminal acetylenes followed by Pd(0)-mediated coupling with (2)-1,2-dichiloroethene yielded new enedgives II bearing cyclohexa-2,5-diene

units. IT 626235-20-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of cyclohexadienyl enediynes via double addition of functionalized

lithium acetylides to benzoquinone, selective monodeprotection and coupling with dichloroethene)

RN 626235-20-9 CAPLUS

CM Silane, [(32)-3-hexene-1,5-diyne-1,6-diylbis[(cis-1,4-dimethoxy-2,5-cyclohexadiene-1,4-diyl)-2,1-ethynediyl]]bis[tris(1-methylethyl)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

Double bond geometry as shown.



PAGE 1-B

__Si(Pr-i)3

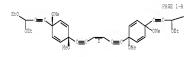
IT 626236-21-09 626235-22-1P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of cyclohexadienyl enediynes via double addition of functionalized

lithium acetylides to benzoquinone, selective monodeprotection and coupling with dichloroethene)

- RN 626235-21-0 CAPLUS
- CN 1,4-Cyclohexadiene, 3,3'-(3%)-3-hexene-1,5-diyne-1,6-diylbis(6-(3,3diethoxy-1-propynyl)-3,6-dimethoxy-, (cis,cis)- (9CI) (CA INDEX NAME)

Relative stereochemistry. Double bond geometry as shown.



PAGE 1-B

__ 0Et

- RN 626235-22-1 CAPLUS
- 1,4-Cyclohexadiene, 3,3'-(3Z)-3-hexene-1,5-divne-1,6-divlbis[6-ethynyl-3,6dimethoxy-, (cis,cis)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

Double bond geometry as shown.

OS.CITING REF COUNT:

- THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD
- (6 CITINGS)

REFERENCE COUNT:

SOURCE:

- THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L7 ANSWER 17 OF 32 CAPLUS COPYRIGHT 2009 ACS on STM ACCESSION NUMBER: 2003:234291 CAPLUS Full-text

DOCUMENT NUMBER: 139:85055

Acetylenic scaffolding on solid support:

Poly(triacetylene)-derived oligomers by Sonogashira and Cadiot-Chodkiewicz-type cross-coupling reactions

Utesch, Nils F.; Diederich, Francois

AUTHOR(S):

Laboratorium fur Organische Chemie, ETH-Honggerberg, CORPORATE SOURCE:

HCI, Zurich, CH-8093, Switz.

Organic & Biomolecular Chemistry (2003), 1(2), 237-239 CODEN: OBCRAK; ISSN: 1477-0520

PUBLISHER: Royal Society of Chemistry DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 139:85055

- AB Synthesis of poly(triacetylene)-derived oligomers by Pd(0)-catalyzed Sonogashira and Cadiot-Chodkiewicz-type cross-coupling reactions on solid support is reported. Oligo(phenylene triacetylene)s, e.g., I[4-C6H4C.tplbond.CCR:CRC.tplbond.C]nSiMe3 (R = CH2OSiButMe2, n = 1, 2, 3, 4) members of a new class of linearly π-conjugated oligomers with all-C backbones, feature very high fluorescence intensities.
- IT 654469-C2-0P 554409-63-1P 554453-64-2P
 - RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (electronic absorption and emission, UV/VIS spectra; poly(triacetylene)-derived oligomers are prepared by Sonogashira and Cadiot-Chodkiewicz-type Pd-catalyzed cross-coupling reactions)
- RN 554459-62-0 CAPLUS
- CN 4,9-Dioxa-3,10-disiladodec-6-ene, 6-[[4-[(3E)-3,4-bis[[[(1,1dimethylethyl)dimethylsilyl]oxy]methyl]-6-(4-iodophenyl)-3-hexene-1,5diynyl]phenyl]ethynyl]-2,2,3,3,10,10,11,11-octamethyl-7-[(trimethylsilyl)ethynyl]-, (6E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A

PAGE 1-B

~I

RN 554459-63-1 CAPLUS

CN 4, 9-Dioxa-3,10-disiladodec-6-ene, 6-[(4-[(3E)-6-[4-[(3E)-3,4-bis][[(1,1-dist-thylethylethylethylsily]]coy]nethyl]-6-(4-lodohanyl)-3-hexene-1,5-diynyl]phenyl]-3,4-bis[[([1,1-dist-thylethyl]dist-thylsily]]coy]nethyl]-3-hexene-1,5-diynyl]phenyl]ethynyl]-2,2,3,3,10,10,11,11-octamethyl-7-[(trinethylsilyl]ethynyl]-, (6E)-[9E] (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-B

RN 554459-64-2 CAPLUS

CN 4,9-Dioxa-3,10-disiladodes-6-ene, 6-[[4-[(3E)-6-[4-[(3E)-3,4-bis:[[(1,1-dinethylethyl-dinethylethyl-dinethyl-16-(4-iodophanyl)-3-hexene-1,5-diynyl]phanyl]-3,4-bis:[[(1,1-dinethylethyl-dinethyl-silyl]oxy]nethyl]-3-hexene-1,5-diynyl]phanyl]ethyvyl]-7-[[4-[(3E)-3,4-bis:[[(1,1-dinethylethyl-16-(trinethyl-silyl)-3-hexene-1,5-diynyl]phanyl]ethyvyl]-2,2,3,3,10,10,11,11-octanethyl-, (6E)-[3C1] (CA INDEX NAWA)

Double bond geometry as shown.

PAGE 1-B

IT 55459-71-109, Merrifield resin-supported 55459-72-209, Merrifield resin-supported 554459-73-309

, Merrifield resin-supported

R1: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and Sonogashira and Cadiot-Chodkiewicz-type Pd-catalyzed cross-coupling reactions of supported poly(triacetylene)-derived oligomers)

RN 554459-71-1 CAPLUS

CW Ethanol, 2-[3-[4-([3E)-6-[4-([3E)-3,4-bis[[([1],1-dishethylethyl)dinshtylsily]]-3-bexene-1,5-diyn-1-yl]phenyl]-3,4-bis[[([1,1-dishethylsily]]oxy]nethyl]-3-bexene-1,5-diyn-1-yl]phenyl]-1-ethyl-2-triazen-1-yl- (CA INDEX MANE)

Double bond geometry as described by $\ensuremath{\mathbb{E}}$ or $\ensuremath{\mathbb{Z}}.$

PAGE 1-A

PAGE 1-B

- RN 554459-72-2 CAPLUS
- CN Ethanol, 2-[3-[4-[(3E)-6-[4-[(3E)-6-[4-[(3E)-3,4-bis[[[1,1-disethylethyl]disethyls]]]]]] + 0. The disethylethyl disethyls liyly log lynethyl]-6-[trinethylsilyl]-3-hexene-1, 5-diyn-1-yl]phenyl]-3, 4-bis[[[[1,1-disethylsilyl]disylpethyl]]-3,-bis[[[1,1]-disethylsilyl]disethylsilyl]]]] + 0. The disethylethyl disethylsilyl] oxylpethyl]-3-hexene-1, 5-diyn-1-yl]phenyl]-1-dthyl-2-triagen-1-yl] (CA INDEX NAME)

Double bond geometry as described by E or \mathbb{Z} .

- RN 554459-73-3 CAPLUS
- CN Ethanol, 2-[3-[4-[3E)-6-[4-[3E)-6-[4-[3E)-6-[4-[3E)-3,4-bis[[[1],1-dimethylethyl]dimethylsilyl]owy)]methyl]-6-[trimethylsilyl]-3-hexene-1,5-diyn-1-yl]phenyl]-3-bis[[[1,1]-dimethylsilyl]owy]methyl]-3-hexene-1,5-diyn-1-yl]phenyl]-3,4-bis[[[1,1]-dimethylsilyl]owy]methyl]-3-hexene-1,5-diyn-1-yl]phenyl]-3,4-bis[[[1,1]-dimethylsilyl]owy]methyl]-3-hexene-1,5-diyn-1-yl]phenyl]-1-ethyl-2-triazen-1-yl]- (CA INDEX MANE)

Double bond geometry as described by ${\mathbb E}$ or ${\mathbb Z}.$

PAGE 1-B

PAGE 1-C

OS.CITING REF COUNT:

THERE ARE 18 CAPLUS RECORDS THAT CITE THIS

RECORD (18 CITINGS)

REFERENCE COUNT: 38 THERE ARE 38 CITED F

THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 18 OF 32 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2002:658690 CAPLUS Full-text

DOCUMENT NUMBER: 137:208374

TITLE: Manufacturing method of semiconductor device using

mask pattern having high etching resistance Ohuchi, Junko; Sato, Yasuhiko; Shiobara, Eishi;

Hayashi, Hisataka; Ohiwa, Tokuhisa; Onishi, Yasunobu PATENT ASSIGNEE(S): Kabushiki Kaisha Toshiba, Japan

SOURCE: U.S. Pat. Appl. Publ., 26 pp.

U.S. Pat. Appl. Publ., 26 pp. CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

INVENTOR(S):

| PA' | IENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-----|-------------|------|----------|-----------------|----------|
| | | | | | |
| US | 20020119612 | A1 | 20020829 | US 2001-14459 | 20011214 |
| US | 6576562 | B2 | 20030610 | | |
| JP | 2002305187 | A | 20021018 | JP 2001-381504 | 20011214 |
| JP | 3504247 | B2 | 20040308 | | |

PRIORITY APPLM. INFO.: JP 2000-381410 A ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

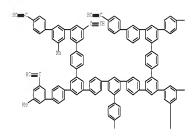
AB A manufacturing method of semiconductor device comprises (1) forming a mask material having an aromatic ring and carbon content of 2 80 % on an object, (2) forming a mask material pattern by etching the mask material to a desired pattern, and (3) etching the object to transfer the mask material pattern as a

mask to the object. IT 452000-35-4

RL: TEM (Technical or engineered material use); USES (Uses)
(semiconductor device mask pattern having high etching resistance
containing)

RN 452303-35-4 CAPLUS

PAGE 1-A



OS.CITING REF COUNT: 8 THERE ARE 8 CAPLUS RECORDS THAT CITE THIS RECORD [8 CITINGS]

L7 ANSWER 19 OF 32 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2002:198497 CAPLUS Full-text

DOCUMENT NUMBER: 136:401857

TITLE: Acetylide-Bridged Organometallic Oligomers via the Photochemical Metathesis of Methyl-Iron(II) Complexes

AUTHOR(S): Field, Leslie D.; Turnbull, Anthony J.; Turner, Peter CORPORATE SOURCE: School of Chemistry, The University of Sydney, Sydney,

2006, Australia

SOURCE: Journal of the American Chemical Society (2002),

124(14), 3692-3702

CODEN: JACSAT; ISSN: 0002-7863

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 136:401857

(1) and trans-[Fe(depe)2(C.tplbond.CR)(CH3)] (2) (dmpe = 1,2dimethylphoshinoethane; depe = 1,2-diethylphosphinoethane), were synthesized by transmetalation from the corresponding alkyl halide complexes. Acetylido Me iron(II) complexes were also formed by transmetalation from the chloride complexes, trans-[Fe(dmpe)2(C.tplbond.CR)(Cl)] or trans-[Fe(depe)2(C.tplbond.CR)(Cl)]. The structure of trans-[Fe(dmpe)2(C.tplbond.CC6H5)(CH3)] (la) was determined by single-crystal x-ray diffraction. The Me acetylido iron complexes, [Fe(dmpe)2(C.tplbond.CR)(CH3)] (1), are thermally stable in the presence of acetylenes; however, under UV irradiation, methane is lost with the formation of a metal bisacetylide. Photochem. metathesis of cis- or trans-[Fe(dmpe)2(CH3)(C.tplbond.CR)] (R = C6H5 (la), 4-C6H4OCH3 (lb)) with terminal acetylenes was used to selectively synthesize unsym. substituted iron(II) bisacetylide complexes of the type trans-[Fe(dmpe)2(C,tplbond,CR)(C,tplbond,CR')] [R = Ph, R' = Ph (6a), 4-CH30C6H4 (6b), tBu (6c), SiMe3 (6d), (CH2)4C.tplbond.CH (6e); R = 4-CH30C6H4, R' = 4-CH3OC6H4, (6g), tBu (6h), (CH2)4C.tplbond.CH (6i), adamantyl (6j)]. The structure of the unsym. iron(II) bisacetylide complex trans-[Fe(dmpe)2(C.tplbond.CC6H5)(C.tplbond.CC6H4OCH3)] (6b) was determined by single-crystal x-ray diffraction. The photochem, metathesis of the bisacetylene, 1,7-octadiyne, with trans-[Fe(dmpe)2(CH3)(C.tplbond.CPh)] (la), was utilized to synthesize the bridged binuclear species trans, trans-[(C6H5C.tplbond.C)Fe(dmpe)2(µ-C.tplbond.C(CH2)4C.tplbond.C)Fe(dmpe)2(C.tplbond.CC6H5)] (11). The trinuclear species trans, trans, trans-[(C6H5C, tplbond, C)Fe(dmpe)2(u-C.tplbond.C(CH2)4C.tplbond.C)Fe(dmpe)2(u-

AB The acetylido Me iron(II) complexes, cis/trans-[Fe(dmpe)2(C.tplbond.CR)(CH3)]

C.tplbond.C(CH2)4C.tplbond.C)Fe(dmpe)2(p-C.tplbond.CC6H5)] (12) was synthesized by the ghotochem. reaction of

Fe(dmpe)2(C.tplbond.CPh)(C.tplbond.C(CE2)4C.tplbond.CE) (6e) with Fe(dmpe)2(CE3)2. Extended irradiation of the bisoecytide complexes with phenylacetylene resulted in insertion of the terminal alkyme into one of the metal acetylide bonds to give acetylide butenyne complexes. The structure of the acetylide butenyne complex, trans-[Fe(dmpe)2(C.tplbond.CC6E4CCE3)(ni-C(CEE6)CECCE)(CECCED)CECCEDCES)(1) (3a) was determined by single-crystal x-ray diffraction.

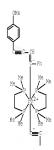
IT 425380-70-79

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and crystal structure of)

RN 425380-70-7 CAPLUS

CN Iron, bis[1,2-ethanediylbis(dimethylphosphine-KP]][(4methoxyphenyl)ethynyl][(1E)-4-(4-methoxyphenyl)-1-phenyl-1-buten-3-ynyl]-,
(OC-6-11)- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



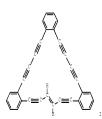
- IT 425380-86-4P
 - RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)
- RN 425380-85-4 CAPLUS
- CN Iron, [(1E)-1,4-diphenyl-1-buten-3-ynyl]bis[1,2
 - ethanediylbis[dimethylphosphine-xP]](phenylethynyl)-, (OC-6-11)-(9CI) (CA INDEX NAME)



- CS.CITING REF COUNT: 13 THERE ARE 13 CAPLUS RECORDS THAT CITE THIS
 - RECORD (13 CITINGS)
- REFERENCE COUNT: 72 THERE ARE 72 CITED REFERENCES AVAILABLE FOR THIS
 - RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
- 17 ANSWER 20 OF 32 CAPLUS COPYRIGHT 2009 ACS on STN 2001:714296 CAPLUS Full-text ACCESSION NUMBER:
- DOCUMENT NUMBER: 136:69640

CORPORATE SOURCE:

- TITLE: Synthesis and spectroscopic studies of expanded planar
 - dehydrotribenzo[n]annulenes containing one or two
 - isolated alkene units
- AUTHOR(S): Wan, W. Brad; Chiechi, Ryan C.; Weakley, Timothy J. R.; Haley, Michael M.
 - Department of Chemistry and the Materials Science Institute, University of Oregon, Eugene, OR,
 - 97403-1253, USA
- SOURCE: European Journal of Organic Chemistry (2001), (18),
 - 3485-3490
 - CODEN: EJOCFK: ISSN: 1434-193X
- PUBLISHER: Wiley-VCH Verlag GmbH DOCUMENT TYPE:
- Journal LANGUAGE: English
- OTHER SOURCE(S): CASREACT 136:69640



- AB Dehydrobenzoannulene derivs. containing isolated alkene linkages, e.g., I, were synthesized by combining an in situ Pd/Cu-mediated cross-coupling with an intramol. cyclization strategy. 1H NMR studies of these macrocycles and comparison with related systems verify that highly alkynylated dehydrobenzoannulenes possess weak induced ring currents, indicative of aromatic (4n+2 π systems) and antiarom. (4n π systems) behavior, in spite of their large size and extensive benzannulation.
- IT 214628-17-RP 214628-18-9P 383404-36-48 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and spectroscopic studies of expanded planar dehydrotribenzo[n]annulenes containing one or two isolated alkene units)

RN 214628-17-8 CAPLUS

methylethyl)silyl]ethynyl]phenyl]-1,3-butadiynyl]phenyl]-3-hexene-1,5diynyl]phenyl]ethynyl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-B

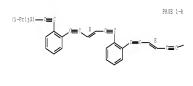
- RN 214628-18-9 CAPLUS
- CN Silane, tris(1-methylethyl)[[2-[6-[2-[(3E)-6-[2-[[tris(1methylethyl)silyl]ethynyl]phenyl]-3-hexene-1,5-diynyl]phenyl]-1,3,5hexatriynyl]phenyl]ethynyl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-B

- RN 383404-38-4 CAPLUS
- CM Silane, [1,2-phenylenebis[(3E)-3-hexene-1,5-diyne-6,1-diyl-2,1-phenylene-2,1-ethynediyl]]bis[tris(1-methylethyl)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



PAGE 1-B



THERE ARE 10 CAPLUS RECORDS THAT CITE THIS OS.CITING REF COUNT:

RECORD (10 CITINGS)

REFERENCE COUNT: THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS

RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

17 ANSWER 21 OF 32 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2000:832492 CAPLUS Full-text

DOCUMENT NUMBER: 134:310920

TITLE: Bis(enediyne) Macrocycles: Synthesis, Reactivity, and

Structural Analysis AUTHOR(S): Blanchette, H. S.; Brand, S. C.; Naruse, H.; Weakley,

T. J. R.; Haley, M. M. CORPORATE SOURCE:

Department of Chemistry, University of Oregon, Eugene, OR, 97403-1253, USA

SOURCE: Tetrahedron (2000), 56(49), 9581-9588

CODEN: TETRAB; ISSN: 0040-4020

Elsevier Science Ltd.

PUBLISHER:

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 134:310920

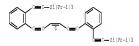
- AB The authors describe the syntheses of five macrocycles possessing two enediyne warheads, along with the structural and thermal analyses of these bis(enediyne) compds. The solid-state packing of one of the compds. suggests the possibility for the mol. to undergo a topochem. discetylene polymerization
- II 335378-20-6P 335578-30-59
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)

(preparation of bis(enedigne) macrocycles)

RN 335378-20-6 CAPLUS

CN Silane, [(32)-3-hexene-1,5-diyne-1,6-diylbis(2,1-phenylene-2,1-ethynediyl)]bis[tris(1-methylethyl)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 335378-30-8 CAPLUS

CN Benzene, 1,1'-(3Z)-3-hexene-1,5-diyne-1,6-diylbis[2-ethynyl- (9CI) (CA INCEX NAME)

Double bond geometry as shown.



OS.CITING REF COUNT: 19 THERE ARE 19 CAPLUS RECORDS THAT CITE THIS

RECORD (20 CITINGS)

REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 AMSWER 22 OF 32 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2000:767122 CAPLUS Full-text

DOCUMENT NUMBER: 134:71381

TITLE: Synthesis and structure of a new [6.6]metacyclophane

with enediyne bridges

AUTHOR(S): Srinivasan, Manivannan; Sankararaman, Sethuraman; Dix,

Ina; Jones, Peter G.

CORPORATE SOURCE: Department of Chemistry, Indian Institute of Technology, Madras, 600 036, India

Organic Letters (2000), 2(24), 3849-3851

CODEN: ORLEF7; ISSN: 1523-7060

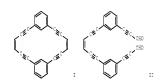
PUBLISHER: American Chemical Society

PUBLISHER: American Chemical Socie
DOCUMENT TYPE: Journal

LANGUAGE: English

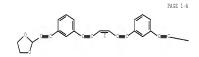
SOURCE:

OTHER SOURCE(S): CASREACT 134:71381



- AB Synthesis and structure of a novel [6.6]mstacyclophane with enedigne bridges I is reported. I was prepared by reacting 1,7-diethymylbenzeme with EtMyBr/HF and DBY to give the monoaledhyde. The nonoaledhyde was subsequently converted to the acetal, coupled with CLCHCHCL to give bis-acetal, which was hydrolyzed to the dialedhyde II. II underwent McMurry coupling using TiCl3 and Zn-Cu couple in DBY to give I in 69% yield.
- IIT 215316.90-69 315716.91-70
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
- (preparation and crystal structure of metacyclophane with enediyne bridges) RN 315716-90-6 CAPLUS
- CN 1,3-Dioxolane, 2,2'-[(3Z)-3-hexene-1,5-diyne-1,6-diylbis(3,1-phenylene-2,1-ethynediyl)bis-(9CI) (CA INDEX NAME)

Double bond geometry as shown.



PAGE 1-B



- RN 315716-91-7 CAPLUS
- CN 2-Propynal, 3,3'-[(3Z)-3-hexene-1,5-diyne-1,6-diyldi-3,1-phenylene]bis-(9CI) (CA INCEX NAME)



OS.CITING REF COUNT: 18 THERE ARE 18 CAPLUS RECORDS THAT CITE THIS

RECORD (18 CITINGS)

REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS

RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 23 OF 32 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1999:673316 CAPLUS Full-text

DOCUMENT NUMBER: 131:337589

DOCUMENT NORMER: 131:33/369

TITLE: Electronic structure of fully conjugated dendritic

oligomers of β,β-dibromc-4-ethynyl styrene
AUTEOR(S): Fomine, Serguei; Fomina, Lioudmila; Guadarrama,

Patricia

CORPORATE SOURCE: Universidad Nacional Autonoma Mexico, Inst de Investigaciones en Materiales, Coyoacan, 04510 CU,

May

SOURCE: THEOCHEM (1999), 488, 207-216

CODEN: THEODJ; ISSN: 0166-1280

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal LANGUAGE: English

B31Y?/3-21G/HE/3-21G (d) and B31Y2/3-21G/PM3 levels of theory showed that loose dendritic architecture of $\beta_i\beta$ -dibrome-4-chyryl styrene oligomers contributes little to the instability and conjugation disruption compared to $1 \rightarrow 2$ branched polyscetylene, while Br terminal atoms in dendrimers strongly affect the electronic d. distribution in studied mole. On the one hand the bulky bromine atoms decrease the conjugation in Br-terminated dendrimers caused by sterio hindrances, on the other hand, highly polarizable bromine

AB Quantum-mech. calcns. of fully conjugated dendritic oligomers carried out at

affect the electronic of distribution in studied mols. On the one hand the bully bromine atoms decrease the conjugation in Br-terminated dendrimers caused by steric hindrances, on the other hand, highly polarizable bromine atoms reduced significantly adiabatic ionization potentials (IPa) to be up to 1.5 eV lower than corresponding vertical potentials (IPa). Another phenomenon contributing to the reducing of IPa's of all dendrimers is the flattening of mol, geometry accompanying the ionization thus allowing better delocalization of pos. charge over the conjugated system while all aromatic ring except the very outer layer lost their aromaticity becoming essentially quinone by mature.

nature.

208181-71-7 208181-72-8 208181-73-9 208181-74-0 108181-75-1 208181-76-2

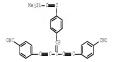
206181-77-3 206181-78-4 206181-79-5

(electronic structure of fully conjugated dendritic oligomers of $\beta,\beta\text{-dibromo-}4\text{-ethynyl}$ styrene)

RN 206181-71-7 CAPLUS

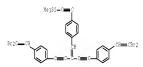
RL: PRP (Properties)

CN Benzaldehyde, 4,4'-[3-[[4-[(trimethylsily1)ethynyl]phenyl]methylene]-1,4-pentadiyne-1,5-diyl]bis- (9CI) (CA INDEX NAME)



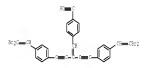
RN 206181-72-8 CAPLUS

CM Silane, [[4-[4-[4-(2,2-dibromoethenyl)phenyl]-2-[[4-[2,2-dibromoethenyl)phenyl]ethynyl]-1-buten-3-ynyl]phenyl]ethynyl]trimethyl-(9CI) (CA INDEX NAME)



RN 206181-73-9 CAPLUS

CN Benzene, 1,1'-[3-[(4-ethynylphenyl)methylene]-1,4-pentadiyne-1,5-diyl]bis[4-(2,2-dibromoethenyl)- (9CI) (CA INDEX NAME)



RN 206181-74-0 CAPLUS

CN Benzene, 1,1'-[1,3-butadiyne-1,4-diyl)bis[4-[4-[4-(2,2-dibromoethenyl)phenyl]-2-[[4-(2,2-dibromoethenyl)phenyl]-1-buten-3-ynyl]- (9CI) (CA INDEX NAME)

RN 206181-75-1 CAPLUS

CN Benzaldehyde, 4,4'-[3-[(4-ethynylphenyl)methylene]-1,4-pentadiyne-1,5-diyl]bis- (CA INDEX NAME)

RN 206181-76-2 CAPLUS

CN Benzaldehyde, 4,4"-[3-[4-[(trinethylsily]]ethynyl]phenyl]methylene]-1,4-pentadiyne-1,5-diyl]bis[4,1-phenylene]3-[(4-formylphenyl)ethynyl]-3-buten-1-yne-4,2-diyl]]]bis- (9CI) (CA INDEX NAME)

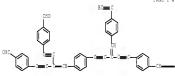
PAGE 1-B



RN 206181-77-3 CAPLUS

CN Benzaldehyde, 4,4'-[[3-[(4-ethynylphenyl)methylene]-1,4-pentadiyne-1,5-diyl]bis[4,1-phenylene[3-[(4-formylphenyl)ethynyl]-3-buten-1-yae-4,1-diyl]]]bis-(9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



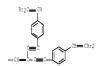
RN 206181-78-4 CAPLUS

CN Benzaldehyde, 4,4'-[1,3-butadiyne-1,4-diylbis(4,1-phenylene[3-[[4-[4-[4-formylpheny]]-2-[4-formylpheny]]-1-butan-3-ynyl]phenyl]-3-butan-1-yne-4,1-diyl]-4,1-phenylene[3-[[4-formylphenyl]-3-butan-1-yne-4,1-diyl]]bis- [901] (CA INDEX MANE)

RN 206181-79-5 CAPLUS

CN Silane, [[4-[4-[4-[4-(4-(2,2-dibromoethenyl)phenyl]-2-[[4-(2,2-dibromoethenyl)phenyl]-2-[[4-(2,2-dibromoethenyl)phenyl]ethynyl]-1-buten-3ynyl]phenyl]ethynyl]-1-buten-3-ynyl]phenyl]ethynyl]trimethyl- (9CI) (CA INDEX NAME)

PAGE 1-B



OS.CITING REF COUNT: THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD

(2 CITINGS)

THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

17 ANSWER 24 OF 32 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1999:650836 CAPLUS Full-text

DOCUMENT NUMBER: 132:16702

TITLE: Theoretical description of luminescent effects in

 β, β -di(4'-formylphenylethynyl)-4-

ethynylstyrene

Salcedo, R.; Guadarrama, P.; Sansores, L. E.; Fomine, AUTHOR(S):

S.: Fomina, L.

CORPORATE SOURCE: Inst. de Investigaciones en Materiales, Inst. de

Investigaciones en Materiales, UNAM, Mexico, 04510,

SOURCE: Materials Research Society Symposium Proceedings

(1999), 560 (Luminescent Materials), 359-364

CODEN: MRSPDH; ISSN: 0272-9172

Materials Research Society PUBLISHER:

Journal

DOCUMENT TYPE: LANGUAGE: English

AB Theor. calcns. at HF/6-31 G(d) level were carried out on fully conjugated compds. (4-ethynylbenzaldehyde, β , β -dibromo-4-ethynylstyrene, β , β -Di(4'formylphenylethynyl)-4-ethynylstyrene and its dimmer) to understand the source of blue emission observed in oligomers of the 1st and 2nd generation in CHC13 solns. The frontier orbitals are distributed through the framework of the

mols. (benzene rings, double and triple bonds and chromophores). Addnl., a CI approach was applied over $\beta_r\beta$ -Di(4"-formylphenylethynyl)-4-ethynylstyrene

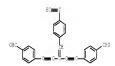
(compound 3) at CIS/6-31 G(d) level to modeling excited states and simulate the UV-visible spectrum exptl. obtained. Calculated transitions corresponded to SO-S1 which are, presumably, responsible for the fluorescence observed 261479-84-2

RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)

(theor, description of luminescent effects in styrene derivs.)

RN 206181-75-1 CAPLUS

Benzaldehyde, 4,4'-[3-[(4-ethynylphenyl)methylene]-1,4-pentadiyne-1,5divllbis- (CA INDEX NAME)



251479-84-2 CAPLUS

Benzaldehyde, 4,4'-[1,3-butadiyne-1,4-diylbis[4,1-phenylene[3-[(4formylphenyl)ethynyl]-3-buten-1-yne-4,1-diyl]]bis- (9CI) (CA INDEX NAME)

PAGE 1-B



OS.CITING REF COUNT:

THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

REFERENCE COUNT:

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT 17 ANSWER 25 OF 32 CAPLUS COPYRIGHT 2009 ACS on STN 1998:756297 CAPLUS Full-text ACCESSION NUMBER:

DOCUMENT NUMBER: 130:11860

TITLE: Porphyrin-[(E)-1,2-diethynylethene] scaffolding. Synthesis and optical and electrochemical properties

of multinanometer-sized porphyrin arrays

Wytko, Jennifer; Berl, Volker; McLaughlin, Mark; ATTITHOR (S) . Tykwinski, Rik R.; Schreiber, Martin; Diederich,

Francois; Boudon, Corinne; Gisselbrecht, Jean-Paul; Gross, Maurice

Laboratorium Organische Chemie, ETH-Zentrum, Zurich, CORPORATE SOURCE:

CH-8092, Switz. SOURCE: Helvetica Chimica Acta (1998), 81(11), 1964-1977

CODEN: HCACAV; ISSN: 0018-019X PUBLISHER: Verlag Helwetica Chimica Acta AG

DOCUMENT TYPE: Journal LANGUAGE: English

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Two series of linearly conjugated hybrid materials, consisting of (E)-1,2diethynylethene (DEE; hex-3-ene-1,5-diyne) and Zn(II) porphyrin components, were prepared by PdO-catalyzed cross-coupling reactions. In 1 series, 1 or 2 DEE substituents were introduced into the meso-positions of the Zn(II) porphyrins, leading from Zn 5,15bis{[(ethoxycarbonyl)propoxy]phenyl)porphinate (1) to I and II (n = 1; R =

SiMe2tBu). The second series contains the linearly x-conjugated mol. rods III (n = 1-3) that span a length range from 23 Å for III (n = 1) to 53 Å for III (n = 3). The larger rods III (n = 2 and 3) consist of 2 or 3 porphyrin moieties, resp., that are bridged at the meso-positions by trans-enedignedial (hex-3-ene-1,5-diyne-1,6-diyl) linkers. The UV/VIS spectra in the series I, II, and III (n = 1) showed a strong bathochromic shift of both Soret and Q bands of the Zn(II) porphyrin as a result of the addition of DEE substituents. Upon changing from I to II, the Q band was further bathochromically shifted, whereas the Soret band remained nearly at the same position but became broadened and displayed a shoulder on the lower-wavelength edge as a result of excitonic coupling. The close resemblance between the UV/Vis spectra of III (n = 2 and 3) suggests that saturation of the optical properties in the oligomeric series already occurs at the stage of dimeric III (n = 2). Stationary voltammetric investigations showed that the DEE substituents act as strong electron acceptors which induce large anodic shifts in the 1st reduction potential upon changing from I to II (ΔE = 190 mV) and to III (n = 1) ($\Delta E = 340 \text{ mV}$). Increasing the number of porphyrin moieties upon changing from III (n = 1) to III (n = 2) had no effect on the 1st reduction potential yet the 1st oxidation potential was substantially lowered (ΔE = 110 mV). Large differences in the potentials for 1-electron oxidation of the 2 porphyrin moieties in III (n = 2) (ΔE = 200 mV) confirmed the existence of substantial electronic communication between the 2 macrocycles across the trans-enedivnedivl bridge.

II 219483-19-99

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

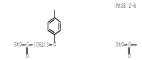
(preparation, UV spectra, electrochem. redox behavior and conversion to trinuclear complex and NMR)

RN 219483-19-9 CAPLUS

CN Zinc, [µ-[[tetraethyl 4,4',4'',4'',-[[(3E)-3,4-bis][[(1,1-dinethylethyl)dinethylsilyl]osy]nethyl]-3-hexene-1,5-diyne-1,6-diyl]bis[[0-[(3E)-3,4-bis][[(1,1-dinethylethyl)dinethylsilyl]oxy]nethyl]-6-[trinethylsilyl]-3-hexene-1,5-diynyl]-21E,23H-porphine-10,5,13-triyl-xd121,K322,K123,K024]-4,1-

phenyleneoxy]]tetrakis[butanoato]](4-)]]di- (9CI) (CA INDEX NAME)

PAGE 1-B



OS.CITING REF COUNT: 45 THERE ARE 45 CAPLUS RECORDS THAT CITE THIS

RECORD (45 CITINGS)

REFERENCE COUNT: 64 THERE ARE 64 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 26 OF 32 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1998:606810 CAPLUS Full-text

DOCUMENT NUMBER: 129:302407 ORIGINAL REFERENCE NO.: 129:61683a,61686a

TITLE: Synthesis of expanded planar dehydrobenzoannulenes:

weakly diatropic, weakly paratropic, or atropic?

AUTHOR(S): Wan, M. Brad; Kimball, David B.; Haley, Michael M. CORPORATE SOURCE: Department of Chemistry, University of Oregon, Oregon,

97403-1253, USA

SOURCE: Tetrahedron Letters (1998), 39(38), 6795-6798

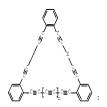
CODEN: TELEAY; ISSN: 0040-4039

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 129:302407

GI



- AB Use of a Cu/Rd cross-coupling strategy has led to the synthesis of the first dehydrobenzoannulenes I [X = C.tplbond.C, [8]-GH:GE; n = 0,1] containing triacetylenic linkages. NMR studies of these macrocycles and comparison with other known systems indicate that, in spite of their large size and extensive benzamnelation, dehydrobenzoannulenes possess weak induced ring currents.
- IT Z14525-17-3P 214628-18-3P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 - (preparation of expanded planar dehydrobenzannulenes with triacetylenic linkages)
- RN 214628-17-8 CAPLUS
- CN Silane, tris(1-methylethyl)[[2-[13E]-6-[2-[4-[2-[[tris(1-methylethyl)silyl]ethynyl]phenyl]-1,3-butadiynyl]phenyl]-3-hexene-1,5-diynyl]phenyl]ethynyl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

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- RN 214628-18-9 CAPLUS
- CN Silane, tris(1-methylethyl)[[2-[6-[2-[(3E)-6-[2-[[tris(1-methylethyl)silyl]ethynyl]phenyl]-3-hexene-1,5-diynyl]phenyl]-1,3,5-hexatriynyl]phenyl]ethynyl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-B

CS.CITING REF COUNT: 25 THERE ARE 25 CAPLUS RECORDS THAT CITE THIS

RECORD (26 CITINGS)

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS
RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 27 OF 32 CAPLUS COPYRIGHT 2009 ACS ON STN ACCESSION NUMBER: 1998:269262 CAPLUS Full-text

DOCUMENT NUMBER: 128:257221 CRIGINAL REFERENCE NO.: 128:50919a,50922a

TITLE: Steric Hindrance Facilitated Synthesis of Enymes and

Their Intramolecular [4 + 2] Cycloaddition with

Alkynes

AUTHOR(S): Gonzalez, Juan J.; Francesch, Andres; Cardenas, Diego

J.; Echavarren, Antonio M.

CORPORATE SOURCE: Departamento de Ouimica Organica, Universidad Autonoma

de Madrid, Madrid, 28049, Spain

SOURCE: Journal of Organic Chemistry (1998), 63(9), 2854-2857

CODEN: JCCEAH; ISSN: 0022-3263
PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 128:257221

- 28 The palladium-catalyzed insertion of 1-alkynes into internal alkynes which are bent out of linearity by the interference with a peri or ortho substituent led to enymes regioselectively. The resulting enymes undergo a new type of intramol, thermal cyclosdón, which can be used for the annulation of an aryl ring onto naphthalene derivs. to afford fluranthenes. The cyclization of (E)-1-(1-buten-3-ynyl)-8- ethynylnaphthalene could also be performed in the presence of a Oxi(I) catalyst at room temperature
- IT 205124-39-68

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of enymes and their intramol. [4+2]cycloaddn. with alkynes)

RN 205124-39-6 CAPLUS

CN 4-Pentyn-2-ol, 2-methyl-5-(4-methylphenyl)-3-[[8-[2-(4-methylphenyl)-thynyl]-1-naphthalenyl]methylphene]-, (3Z)- (CA INDEX NAME)

Double bond geometry as shown.



OS.CITING REF COUNT: 22 THERE ARE 22 CAPLUS RECORDS THAT CITE THIS

RECORD (22 CITINGS)

REFERENCE COUNT: THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 28 OF 32 CAPLUS COPYRIGHT 2009 ACS on STN 1998:247633 CAPLUS Full-text ACCESSION NUMBER: DOCUMENT NUMBER: 128:295129

ORIGINAL REFERENCE NO.: 128:58501a,58504a

TITLE: Synthesis and characterization of well-defined fully

conjugated hyperbranched oligomers of

 β , β -dibromo-4-ethynylstyrene

AUTHOR(S): Fomina, Lioudmila; Guadarrama, Patricia; Fomine, Serquei; Salcedo, Roberto; Oqawa, Takeshi Instituto Investigaciones Materiales, Univ. Nacional CORPORATE SOURCE:

Autonoma de Mexico, Mexico, 04510, Mex. SOURCE:

Polymer (1998), 39(12), 2629-2635 CODEN: POLMAG; ISSN: 0032-3861

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

AB Well-defined dendritic oligomers of poly $(\beta, \beta$ -dibromo-4-ethynylstyrene) of the first and second generation were synthesized by a stepwise synthesis, and characterized. NMR and theor. calcns. showed that free rotation around formal single bonds is hampered by conjugation. All of the oligomers were blue emitters with their emission maxima correlating with the number of repeating units. All dendrimers except \$\beta, \beta-\text{bis}[\beta', \beta'-\text{di}(\beta'', \beta''-\text{dibromostyryl-4"-} ethynyl)styryl-4'-ethynyl]-4-ethynylstyrene showed two maxima in the excitation spectra.

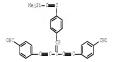
IT 206181-71-70 206181-72-80 204161-73-90 108181-74-0P ZUGIE1-75-1P Z06181-76-0P 208181-77-3P Z06181-78-4P

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and characterization of conjugated hyperbranched β,β-dibromo-4-ethynylstyrene oligomers)

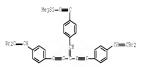
RN 206181-71-7 CAPLUS

Benzaldehyde, 4,4'-[3-[[4-[(trimethylsily1)ethynyl]phenyl]methylene]-1,4pentadiyne-1,5-diyl]bis- (9CI) (CA INDEX NAME)



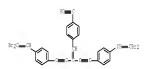
RN 206181-72-8 CAPLUS

dibromoethenyl)phenyl]ethynyl]-1-buten-3-ynyl]phenyl]ethynyl]trimethyl-(9CI) (CA INDEX NAME)



RN 206181-73-9 CAPLUS

 ${\tt CN \quad Benzene, \ 1,1'-[3-[(4-ethynylphenyl)methylene]-1,4-pentadiyne-1,5-}\\$ divl|bis[4-(2,2-dibromoethenvl)- (9CI) (CA INDEX NAME)



RN 206181-74-0 CAPLUS

CN Benzene, 1,1'-(1,3-butadiyne-1,4-diyl)bis[4-[4-[4-(2,2dibromoethenyl)phenyl]-2-[[4-(2,2-dibromoethenyl)phenyl]ethynyl]-1-buten-3ynyl]- (9CI) (CA INDEX NAME)

RN 206181-75-1 CAPLUS

CN Benzaldehyde, 4,4'-[3-[(4-ethynylphenyl)methylene]-1,4-pentadiyne-1,5-diyl]bis- (CA INDEX NAME)

RN 206181-76-2 CAPLUS

CN Benzaldehyde, 4,4"-[3-[4-[(trinethylsily]]ethynyl]phenyl]methylene]-1,4-pentadiyne-1,5-diyl]bis[4,1-phenylene]3-[(4-formylphenyl)ethynyl]-3-buten-1-yne-4,2-diyl]]]bis- (9CI) (CA INDEX NAME)

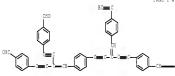
PAGE 1-B



RN 206181-77-3 CAPLUS

CN Benzaldehyde, 4,4'-[[3-[(4-ethynylphenyl)methylene]-1,4-pentadiyne-1,5-diyl]bis[4,1-phenylene[3-[(4-formylphenyl)ethynyl]-3-buten-1-yae-4,1-diyl]]]bis-(9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



RN 206181-78-4 CAPLUS

CN Benzaldehyde, 4,4'-[1,3-butadiyne-1,4-diylbis(4,1-phenylene[3-[[4-[4-[4-formylpheny]]-2-[4-formylpheny]]-1-butan-3-ynyl]phenyl]-3-butan-1-yne-4,1-diyl]-4,1-phenylene[3-[[4-formylphenyl]-3-butan-1-yne-4,1-diyl]]bis- [901] (CA INDEX MANE)

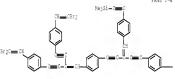
IT Z06181-79-5P

RL: PRF (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and characterization of conjugated hyperbranched

 β, β -dibromo-4-ethynylstyrene oligomers)

RN 206181-79-5 CAPLUS

CH Silane, [[4-[4-[4-[4-[2-2-dibromethenyl]]henyl]]-2-[[4-[2,2-dibromethenyl]]henyl] ethynyl]-1-buten-3-ynyl]phenyl]-2-[[4-[2,2-dibromethenyl]]henyl]-2-[[4-[2,2-dibromethenyl]]henyl]-1-buten-3-ynyl]phenyl]ethynyl]-1-buten-3-ynyl]phenyl]ethynyl]-1-buten-3-ynyl]phenyl]ethynyl]-1-buten-3-ynyl]phenyl]ethynyl]trimethyl- (901) (CA INDEX NAME)



PAGE 1-B

OS.CITING REF COUNT: 11 THERE ARE 11 CAPLUS RECORDS THAT CITE THIS

RECORD (11 CITINGS)

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

17 ANSWER 29 OF 32 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1996:303100 CAPLUS Full-text

DOCUMENT NUMBER: 125:11582 ORIGINAL REFERENCE NO.: 125:2539a,2542a

TITLE: Synthesis and polymerization of

β,β-dibromo-4-ethynylstyrene; preparation of a new polyconjugated, hyperbranched polymer Fomina, Lioudmila; Salcedo, Roberto

AUTHOR(S): Fomina, Lioudmila; Saleedo, Roberto
CORPORATE SOURCE: Inst. Investigaciones Materiales, Circuito Exterior,

Ciudad Univ., Mexico City, 04510, Mex. SOURCE: Polymer (1996), 37(9), 1723-1728

Polymer (1996), 37(9), 1723-1728 CODEN: POLMAG; ISSN: 0032-3861

PUBLISHER: Elsevier
COCUMENT TYPE: Journal
LANGUAGE: English

AB The monomer, β, β -dibromo-4-ethynylstyrene, was prepared and polymerized by the Heck reaction to give a partially soluble, conjugated hyperbranched polymer. The polymer structure was elucidated using standard spectroscopic techniques and with the aid of model compound synthesis. Theor. calcus. using the AMI method were carried out and showed that conjugation in the polymer is partially disrupted by twisting of the benzene rings. Both the model compound and the polymer showed luminescence.

IT 177410-40-19

RL: PRP (Properties); SPM (Synthetic preparation); PREP (Preparation)

(model compound for dibromoethynylstyrene polymer)

- RN 177410-40-1 CAPLUS
- CN Benzene, 1,1'-(1,3-butadiyne-1,4-diyl)bis[4-[4-phenyl-2-(phenylethynyl)-1-buten-3-ynyl]- (9CI) (CA INDEX NAME)



OS.CITING REF COUNT: 16 THERE ARE 16 CAPLUS RECORDS THAT CITE THIS RECORD (16 CITINGS)

L7 ANSWER 30 OF 32 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1995:946580 CAPLUS Pull-text

DOCUMENT NUMBER: 124:9540
ORIGINAL REFERENCE NO.: 124:2031a,2034a

OKIGINAL REFERENCE NO.: 124:2031a,2034a
TITLE: Novel polymers containing discrete conjugated units,

produced by the Heck reaction

AUTHOR(S): Fomine, Sergei; Fomina, Lioudmila; Florentino, Hector

Quiroz; Mendez, Juan Manuel; Ogawa, Takeshi

CORPORATE SOURCE: Instituto de Investigaciones en Materiales, Universidad Nacional Autonoma de Mexico, Covoacon,

04510, Mex.

SOURCE: Polymer Journal (Tokyo) (1995), 27(11), 1085-93

CODEN: POLJB8; ISSN: 0032-3896
PUBLISHER: Society of Polymer Science, Japan

DOCUMENT TYPE: Journal

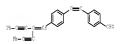
LANGUAGE: English

- AB Novel monomers and polymers containing arylenevinylideneethynylene groups were synthesized via the Heck reaction. The polymers were emorphous and soluble in common organic solvents. They have Tg .apprx.60°, 5% weight loss at 240-340° and undergo thermal crosslinking at 170-190° with loss of triple bends. One of the polymers exhibits strong blue luminescence with emission maxima .apprx.360-390 and 470-480 nn with excitation at 320 nm. All polymers show 3rd order NLO susceptibility .apprx.10-10 esu.
- IT 171796-95-09

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; in preparation of polyacetylene-polyesters)

- RN 171296-95-0 CAPLUS
- CN Benzaldehyde, 4-[2-[4-[4-phenyl-2-(2-phenylethynyl)-1-buten-3-yn-1-yl]phenyl]ethynyl]- (CA INDEX NAME)



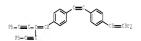
IT 171206-96-19

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(Reactant or reagent)

(monomer; in preparation of polyacetylene-polyesters)

- RN 171296-96-1 CAPLUS
- CN Benzene, 1-[2-[4-(2,2-dibromoethenyl)phenyl]ethynyl]-4-[4-phenyl-2-(2-phenylethynyl)-1-buten-3-yn-1-yl]- (CA INDEX NAME)



IT 171236-33-4P

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reacent)

(preparation, characterization and properties of)

RN 171296-99-4 CAPLUS

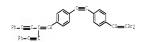
CN Decanedioic acid, di-2-propynyl ester, polymer with

1-[[4-(2,2-dibromoethenyl)phenyl]ethynyl]-4-[4-phenyl-2-(phenylethynyl)-1-buten-3-ynyl]benzene (9CI) (CA INDEX NAME)

CM 1

CRN 171296-96-1

CMF C34 H20 Br2



CM 2

CRN 93164-22-8

CMF C16 H22 O4



IT 171237-02-2, β,β-Bis(phenylethynyl)-4-ethynylstyrene
RL: RCT (Reactant); RACT (Reactant or reagent)
(reactant; in preparation of polyacetylene-polyesters)

RN 171297-02-2 CAPLUS

CN Benzene, 1-ethynyl-4-[4-phenyl-2-(2-phenylethynyl)-1-buten-3-yn-1-yl]-(CA INDEX NAME)



OS.CITING REF COUNT: 11 THERE ARE 11 CAPLUS RECORDS THAT CITE THIS

RECORD (11 CITINGS)

L7 ANSWER 31 OF 32 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1995:642218 CAPLUS Full-text

DOCUMENT NUMBER: 123:33763
ORIGINAL REFERENCE NO.: 123:6259a,6262a

TITLE: Synthesis and molten-state polymerization of some

novel conjugated diacetylenes

AUTHOR(S): Fomina, Lioudmila; Allier, Hector; Fomine, Sergei; Salcedo, Roberto; Ogama, Takeshi

CORPORATE SOURCE: Inst. Investigaciones Materiales, Ciudad Univ.,

Mexico, 04510, Mex.

SCURCE: Polymer Journal (Tokyo) (1995), 27(6), 591-600

CODEN: POLJB8; ISSN: 0032-3896
PUBLISHER: Society of Polymer Science, Japan

DOCUMENT TYPE: Journal LANGUAGE: English

AB A series of new, highly conjugated diacetylenes, 4-ethynylstilbene derivs., was synthesized and their polymerization was studied. None of them was found to undergo topochem. polymerization in the solid state but they readily polymerized in the molten state to give red transparent and amorphous polymers. All the polymers had an absorption maximum in the visible spectra around 500 mm, and FT-IR data showed the enyme structure of the polymer chain resulted from 1,4-addition

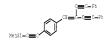
IT 164467-30-69

RL: RCT [Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(in preparation of ethynylstilbene derivative monomers)

RN 164467-30-5 CAPLUS

CN Benzene, 1-[4-phenyl-2-(2-phenylethynyl)-1-buten-3-yn-1-yl]-4-[2-(trimethylsilyl)ethynyl]- (CA INDEX NAME)



II 184487-26-8P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation and characterization of polydiacetylenes from ethynylstilbene derivs, in molten state)

RN 164467-25-8 CAPLUS

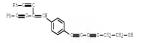
 $\texttt{CN} \qquad \textbf{3,5-Hexadiyn-1-ol, } 6-[4-[4-phenyl-2-(phenylethynyl)-1-buten-3-ynyl]phenyl]-\\$

, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 164467-20-3

CMF C30 H20 O



II 164467-20-39

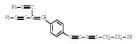
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and polymerization of)

RN 164467-20-3 CAPLUS

 ${\tt CN} \hspace{0.5cm} {\tt 3,5-Hexadiyn-1-ol,} \hspace{0.5cm} {\tt 6-[4-[4-phenyl-2-(2-phenylethynyl)-1-buten-3-yn-1-phenylethynyl)-1-buten-3-yn-1-phenylethynyl)-1-buten-3-yn-1-phenylethynyl} {\tt 1000} {\tt 10$

yl]phenyl]- (CA INDEX NAME)



OS.CITING REF COUNT: 11 THERE ARE 11 CAPLUS RECORDS THAT CITE THIS RECORD (11 CITINGS)

17 ANSWER 32 OF 32 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1994:522234 CAPLUS Full-text

DOCUMENT NUMBER: 121:122234 CA

ORIGINAL REFERENCE NO.: 121:21825h,21826a

TITLE: Difluoride derivative and liquid crystal composition

containing the same

CODEN: PIXXD2

INVENTOR(S): Yokokoji, Osamu; Irisawa, Jun; Koh, Hidemasa

PATENT ASSIGNEE(S): Asahi Glass Co., Ltd., Japan SOURCE: PCT Int. Appl., 43 pp.

DOCUMENT TYPE: Patent
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PAIENI NO. | | | | | KIND DATE | | | | APPL | ICAI | DATE | | | | | | |
|------------|------|-------------------|-----|-----|-----------|------|------|----------------|------|------|------|------|-----|----------|-------------------|------|-----|
| | | | | | - | | | | | | | | | | | | |
| WO | 9405 | 613 | | | A1 | | 1994 | 0317 | | WO 1 | 993- | JP12 | 35 | | 15 | 9930 | 901 |
| | W: | US | | | | | | | | | | | | | | | |
| | RW: | \mathtt{AT}_{I} | BE, | CH, | DΞ, | DK, | ES, | FR_{r} | GB, | GR, | ΙE, | 17, | LU, | MC, | \mathtt{NL}_{r} | PT, | SE |
| EP 628528 | | | | A1 | | 1994 | 1214 | EP 1993-919602 | | | | | | 19930901 | | | |

| R: DE, FR, GB, | TT | | | | |
|------------------------|----|----------|----------------|----|----------|
| JP 06263661 | A | 19940920 | JP 1993-219709 | | 19930903 |
| JP 3564711 | B2 | 20040915 | | | |
| US 5419851 | A | 19950530 | US 1994-211625 | | 19940420 |
| JP 2004292454 | A | 20041021 | JP 2004-115211 | | 20040409 |
| JP 3707493 | B2 | 20051019 | | | |
| PRIORITY APPLN. INFO.: | | | JP 1992-263027 | A | 19920904 |
| | | | WO 1993-JP1235 | W | 19930901 |
| | | | JP 1993-219709 | A3 | 19930903 |

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OTHER SOURCE(S): MARPAT 121:122234

GΙ

AB Difluoride derivs. represented by the general formula:

R1(A1Y1)mA2CF:CFC.tplbond.CA3(Y2A4)nR2 (A1 - A4 = trans-1,4-cyclohexylene, 1,4-cyclohexenylene, or 1,4-phenylene wherein ≥1 CH groups of each ring may be substituted by N or ≥1 CH2 groups of the ring may be substituted by O or S; m, n = 0, 1; R1, R2 = C1-10 alkyl, halo, cyano wherein (1) 0, C02, or O2C may be inserted between the C-C bond of alkyl or that between alkyl and ring, (2) a part of the C-C bonds in alkyl is replaced by C:C or C.tplbond.C bond, or (3) one CH2 group in alkyl is replaced by CO group; Y1, Y2 = CO2, C2C, C.tplbond.C, CH2CH2, CH:CH, OCH2, CH2O) are prepared These compds. have low viscosity, are light-stable, and hence can provide a liquid crystal composition having high response speed. Thus, 0.1 mol ClCF:CF2 was blown into THF at -100° followed by adding dropwise 62.1 mL 1.61 M BuLi/hexane, stirring for 30 min, adding dropwise 0.1 mol Me3SiCl, stirring for 1 h, adding dropwise a solution of 4-propylphenyl lithium in THF (prepared from 4-propylicdobenzene and BuLi) at -100°, and stirring for 2 h at 0° to give 75% (Z)-4-PrC6H4CF:CFSiMe3. The latter compound (0.075 mol) was reacted with 0.15 mol KF in aqueous MeCN at 70° for 1 h to give 83% (E)-4-PrC6H4CF:CFH which (0.062 mol) was dissolved in THF, cooled to -78°, and treated dropwise with 38.5 mL 1.61 M BuLi/hexane followed by stirring for 30 min, adding 15.7 g iodine, and stirring at room temperature for 4 h to give 83% (E)-4-PrC6H4CF:CFI. The latter compound (0.051 mol) and 0.051 mol 4-propylphenylacetylene were dissolved in 100 mL Et3N followed by adding Pd(PPh3)2C12 and CuI and the resulting mixture was allowed to react at room temperature for 6 h to give 70% diphenyldifluorobutenyne derivative (I). A STN-type liquid crystal display device was prepared from a liquid composition containing 20 weight% I and 80 weight% ZLI-1565 and irradiated with a UV carbon arc lamp for 200 h; new compds. were hardly formed whereas cis-4,4'-bis(n-propyl)difluorostilbene was formed in a liquid crystal composition containing ZLI-1565 and trans-4,4'bis(n-propyl)difluorostilbene.

- IT 158889-08-89
 - RL: SPN (Synthetic preparation); PREP (Preparation)
- (preparation of, as liquid crystal with UV stability and low viscosity)
- RN 156869-08-8 CAPLUS
- CN Benzene, 1-[1,2-difluoro-4-(4-propylphenyl)-1-buten-3-ynyl]-4-[(4-methylphenyl)ethynyl]-, (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD

(5 CITINGS)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> file registry

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chain nodes: 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 chain bonds: 4-5 6-7 7-8 8-9 9-10 10-11 11-12 12-13 13-14 14-15 15-16 16-17 17-18 18-19 19-20 chain bonds: 4-5 5-6 11-12 12-13 18-19 19-20 chain bonds: 4-5 5-6 11-12 12-13 18-19 19-20 chain bonds: 4-5 7-8 8-9 9-10 10-11 13-14 14-15 15-16 16-17 17-18

G1:Cb,Cy,Hy

G2:C, H, O, N, Cl, Br, F, I

G3:C, H, Si, Cb, Cv, Hy

Match level :

4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS 10:CLASS 11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS 18:CLASS 19:CLASS 20:CLASS

STRUCTURE UPLOADED

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FULL SEARCH INITIATED 13:20:23 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 11728 TO ITERATE

100 D& PROCESSED 11728 TTERATIONS SEARCH TIME: 00.00.01

70 ANSWERS

70 SEA SSS FUL 18

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1.10 22 T.9

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YOU HAVE REQUESTED DATA FROM 22 ANSWERS - CONTINUE? Y/(N):v

L10 ANSWER 1 OF 22 CAPLUS COPYRIGHT 2009 ACS on STN 2009:1099083 CAPLUS Full-text ACCESSION NUMBER:

DOCUMENT NUMBER: 151:508432

TITLE:

Hybrid Conjugated Organic Oligomers Consisting of Oligodiacetylene and Thiophene Units: Synthesis and

Optical Properties

AUTHOR(S): Pilzak, Gregor S.; van Gruijthuijsen, Kitty; van

Doorn, Reindert H.; van Lagen, Barend; Sudhoelter,

Ernst J. R.; Zuilhof, Han

CORPORATE SOURCE: Laboratory of Organic Chemistry, Wageningen University, Dreijenplein 8, Wageningen, 6703 HB, Neth.

SOURCE: Chemistry--A European Journal (2009), 15(36),

9085-9096, \$9085/1-\$9085/19

CODEN: CEUJED; ISSN: 0947-6539

PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 151:508432

AB Novel and highly soluble hybrid conjugated organic oligomers consisting of oligodiacetylene and thiophene units have been synthesized in high purity through iterative and divergent approaches based on a sequence of Sonogashira reactions. The series of thiophene-containing oligodiacetylenes and homocoupled oligodiacetylenes show, both in solution and in the solid state, a strong optical absorption, which is progressively red shifted with increasing chain length. The linear correlation of the absorption maximum with the inverse of conjugation length (CL = number of double and triple bonds) shows that the effective conjugation length of this system is extended up to at least CL = 20. Furthermore, absorption measurements of dropcast thin films display not only a bathochromic shift of the absorption maxima but also a higher wavelength absorption, which is attributed to increased π - π interactions. The wavelength of the maximum fluorescence emission also increases with CL, and emission is maximal for oligoners with CL = 7-12 (fluorescence quantum yield ΦF = .apprx.0.2). Both longer and shorter oligomers display marginal emission. The calculated Stokes shifts of these planar materials are relatively large (0.4 eV) for all oligomers, and likely due to excitation to the S2 state, thus suggesting that the presence of envne moieties dominates the ordering of the lowest excited states. The fluorescence lifetimes (tF) are short (tFmax = «1 ns) and closely follow the

tendency obtained for the fluorescence quantum yield. The anisotropy lifetimes show a near-linear increase with CL in line with highly rigid oligomers.

IT 1192820-79-30

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (synthesis via iterative Sonogashira coupling and optical properties of hybrid conjugated organic oligomers consisting of oligodiacetylene and

RN 1192820-79-3 CAPLUS

CN INDEX NAME NOT YET ASSIGNED

Double bond geometry as shown.

PAGE 1-B

56 THERE ARE 56 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 2 OF 22 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2009:76616 CAPLUS Full-text

DOCUMENT NUMBER: 150:167710

TITLE: Push-pull hyperbranched molecules. A theoretical study

ATITHOR (S): Ramos, Estrella; Guadarrama, Patricia; Teran, Gerardo;

Fomine, Serguei

CORPORATE SOURCE: Instituto de Investigaciones en Materiales,

Universidad Nacional Autonoma de Mexico, Mexico,

04510. Mex.

COTTOCE . Journal of Physical Organic Chemistry (2009), 22(1), 9-16

CODEN: JPOCEE: ISSN: 0894-3230

PUBLISHER. John Wiley & Sons Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The electronic properties of the ground state, unrelaxed and relaxed first excited states of push-pull hyperbranched mols. bearing amino and nitro terminal groups have been studied at BB1K/cc-pvdz//HF/6-31g(d), TD-BB1K/ccpwdz//HF/6-31g(d) and TD-BB1K/cc-pwdz//CIS/6-31g(d) levels of theory, resp. It was demonstrated that dendritic architecture of push-pull mols. favors the charge transfer in the excited state compared to linear mols. The possibility of adopting a plane conformation is an important condition for the charge transfer in an excited state. According to the calons, 1:1 ratio of donor and acceptor groups is another important precondition for the manifestation of

PAGE 1-B

strong charge separation in the excited state. In case of excess of nitro groups over the amino, some of the excitations participating in the $\$0\to\1 transition favor the charge transfer in the excited state in the opposite directions, thus decreasing the charge separation

IT 1107616-70-5 1107616-72-7

RL: PRP (Properties)

(electronic properties of ground state, unrelaxed and relaxed first excited states of push-pull hyperbranched mols. bearing amino and nitro terminal groups)

- RN 1107616-70-5 CAPLUS
- CN Benzenamine, 4,4'-[3-[[4-[4-(4-nitrophenyl)-2-[2-(4-nitrophenyl)=thynyl]-1-buten-3-ym-1-yl]phenyl]methylene]-1,4-pentadiyne-1,5-diyl]bis- (CA INDEX Waxe)

- RN 1107616-72-7 CAPLUS
- CN Benzenamine, 4,4"-[3-[[4-[5-[4-[4-(4-aminopheny])-2-[2-(4-aminopheny])-thypy]]-1-buten-3-yn-1-y]]phany]]-3-[[4-[4-[4-[4-(4-altropheny])-2-[2-(4-intropheny])-1-buten-3-yn-1-yl]pheny]]-2-[2-(4-nitropheny]]-1-buten-3-yn-1-yl]pheny]]-buthyny]]-1-buten-3-yn-1-yl]pheny]]bethyny]]-1-buten-3-yn-1-yl]pheny]]bethyny]]-1-buten-3-yn-1-yl]pheny]]bethyny]]-1-buten-3-yn-1-yl]pheny]]bethyny]]-1-buten-3-yn-1-yl]pheny]]bethyny]]-1-buten-3-yn-1-yl]pheny]bethyny]-1-buten-3-yn-1-yl]pheny]bethyleny]-1-yn-bentadiyn-1-yl]pheny]bethyleny]-1-yn-bentadiyn-1-yl]pheny]bethyleny]-1-yn-bentadiyn-1-yl]pheny]bethyleny]-1-yn-bentadiyn-1-yl]bethyleny]-1-yn-bentadiyn-1-yn-bentadiyn-1-yl]bethyleny]-1-yn-bentadiyn-1-yn-benta

IT 1107616-75-0 1107616-76-1

RL: PRP (Properties)

(linear analog; electronic properties of ground state, unrelaxed and relaxed first excited states of push-pull hyperbranched mols. bearing amino and nitro terminal groups)

- RN 1107616-75-0 CAPLUS
- CN Benzenamine, 4-[4-[4-(4-nitrophenyl)-1-buten-3-yn-1-yl]phenyl]-3-buten-1-yn-1-yl]- (CA INDEX NAME)

- RN 1107616-76-1 CAPLUS
- CN Benzenanine, 4-[4-[4-[4-[4-[4-[4-[4-[4-[4-nitrophenyl]-1-buten-3-yn-1-yl]phenyl]-1-buten-3-yn-1-yl]phenyl]-3-buten-1-yn-1-yl]phenyl]-3-buten-1-yn-1-yl]- (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 3 OF 22 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2008:244421 CAPLUS Full-text DOCUMENT NUMBER: 148:403337

TITLE: Triphenylphosphine Incorporation Reactions of Diynyl

Complexes Containing a TpRu(NO) Fragment and Isomerization to Ruthenacyclobuta[b]naphthalene AUTEOR(S):

Arikawa, Yasuhiro; Asayama, Taiki; Tanaka, Chie; Tashita, Shin-ya; Tsuji, Misako; Ikeda, Kenta;

Umakoshi, Keisuke; Onishi, Masayoshi CORPORATE SOURCE: Department of Applied Chemistry, Faculty of

Engineering, Nagasaki University, Nagasaki, 852-8521,

Organometallics (2008), 27(6), 1227-1233 SCHROE:

CODEN: ORGND7; ISSN: 0276-7333 American Chemical Society PUBLISHER:

DOCUMENT TYPE: Journal LANGUAGE: English

CASREACT 148:403337 OTHER SOURCE(S): AB Nitrosylruthenium arylbutadiynyl complexes having a Tp ligand (Tp = BH(pyrazol-1-yl)3) were prepared, and their reactivities toward PPh3 incorporation in the presence of HBF4.Et20 were described. The PPh3 incorporation of mono(arylbutadiynyl) complex TpRuCl(C.tplbond.C-C.tplbond.C-C6H4Me)(NO) (1) resulted in the β -phosphonicalkenyl complex (E)-[TpRuCl(CH:C(PPh3)-C.tplbond.C- C6H4Me)(NO)]BF4 (2.BF4), whereas when bis(arylbutadiynyl) TpRu(C.tplbond.C-C.tplbond.C-C6H4Me)2(NO) (3) was treated, mono- and bis(β-phosphonioalkenyl) complexes (E)-[TpRu(C.tplbond.C-C.tplbond.C-C6H4Me)(CH:C(PPh3)-C.tplbond.C-C6H4Me)(NO)]BF4 (4.BF4) and (E,E)-[TpRu(CH:C(PPh3)-C.tplbond.C-C6H4Me)2(NO)](BF4)2 {5 · (BF4)2} were obtained depending on the reaction conditions. On the other hand, an unsym. mixed (arylbutadiynyl) (3-hydroxyalkynyl) complex, TpRu(C.tplbond.C-C.tplbond.C-C6H4Me){C.tplbond.CCPh2(OH)}(NO) (6), was allowed to react with PPh3 in the presence of the protic acid to give the a-phosphonicallenyl [TDRu(C.tplbond.C-C.tplbond.C- C6H4Me) (C(PPh3):C:CPh2)(NO)]BF4 (7.BF4). Interestingly, thermal isomerization of 7-BF4 to a ruthena-2-PPh3cyclobuta[b]naphthalene [TpRu{CH(PPh3)[3-Ph-8-(MeC6H4-C.tplbond.C)-C10H4]](NO)]BF4 (8·BF4) was observed

IT 1918477-39-18

RL: SPN (Synthetic preparation); PREP (Preparation)

(triphenylphosphine incorporation reactions of divnyl complexes containing pyrazolylboratoruthenium nitrosyl fragment and isomerization to ruthenacyclobutanaphthalene)

RN 1015477-30-1 CAPLUS

CN Ruthenium(2+), [hydrotris(1H-pyrazolato-KN1)borato(1-)-

KN2,KN2',KN2'']bis[(1E)-4-(4-methylphenyl)-2-

(triphenylphosphonio)-1-buten-3-yn-1-yl]nitrosyl-, (CC-6-23)-, tetrafluoroborate(1-) (1:2) (CA INDEX NAME)

CM 1

CRN 1015477-29-8

CMF C67 E56 B N7 O P2 Ru

CCT CCS

CM 2

CRN 14874-70-5 CMF B F4

CCI CCS

CS.CITING REF COUNT: 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD

(5 CITINGS) REFERENCE COUNT: THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS

RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

110 ANSWER 4 OF 22 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2008:112838 CAPLUS Full-text

DOCUMENT NUMBER: 148:331583

TITLE: 3-iodo-3-trimethylsilylpropenal as a useful unit for

pinacol coupling and subsequent functional group

transformations

AUTHOR(S): Shimizu, Makoto; Okimura, Hisashi; Manabe, Nobuyuki;

Hachiya, Iwao

CORPORATE SOURCE: Department of Chemistry for Materials, Graduate School

of Engineering, Mie University, Tsu, 514-8507, Japan

SOURCE: Chemistry Letters (2008), 37(1), 28-29

CODEN: CMLTAG; ISSN: 0366-7022

PUBLISHER: Chemical Society of Japan DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 148:331583

- AB Steroselective titanium tetraiodide-pronoted pinacol coupling reactions of (3)-3-halo-3-(substituted-sliyl)prop-2-en-1-als are used for the preparation of trans-4,5-bis[(2)-2-halo-2-(substituted-sliyl)vinyl)-2,7-dimentyl,3dioxolames. These dioxolames are then used for subsequent C-C bond-forming reactions.
- IT 1011296-76-6P
 - RL: SPN (Synthetic preparation); PRGP (Preparation)
 (3-halo-3-(substituted-sily1)prop-2-en-1-als as reactants for
 stereoselective pinacol coupling to form bis-substituted dioxolanes)
- RN 1011296-76-6 CAPLUS
- CN 1,3-Dioxolane, 2,2-dimethyl-4,5-bis[(1E)-4-phenyl-2-(trimethylsilyl)-1-buten-3-yn-1-yl]-, (4R,5R)-rel- (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD

(2 CITINGS)

REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS
RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 5 OF 22 CAPLUS COPYRIGHT 2009 ACS on SIN ACCESSION NUMBER: 2007:939644 CAPLUS Full-text

DOCUMENT NUMBER: 147:385553

TITLE: EDA Study of m-Conjugation in Tunable Bis(gem-diethynylethene) Fluorophores

AUTHOR(S): Fernandez, Israel; Frenking, Gernot
CORPORATE SOURCE: Fachbereich Chemie. Philipps-University

CORPORATE SOURCE: Fachbereich Chemie, Philipps-Universitaet Marburg, Marburg, D-35043, Germany

SOURCE: Journal of Organic Chemistry (2007), 72(19), 7367-7372

CODEN: JOCEAH; ISSN: 0022-3263

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

DOCUMENT TYPE: Journal LANGUAGE: English

AB The strength of m-conjugation in a family of bis/gem-diethynylethene) fluorophores is estimated within the d. functional theory framework using the energy decomposition anal. (DDA) method. The observed very good linear correlations between the calculated m-conjugation and the expl. values for the TW absorption and fluorescence emission for this series of complex suggest that the values given by the EDA are useful for the interpretation and prediction of photochem. properties of the mols. The calculated data predict that adequate modifications in the core moiety of the mols such as m-denor substituents in the aromatic ring or in the periphery of the bis-enedyine unit like m-acceptor groups placed in the para position of the aryl substituent increase the total m-conjugation in the systems and thus provoke significant

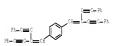
changes in both the absorption and emission spectra leading to large Stokes shifts. The effect of such substituents is quant, predicted by the EDA data.

IT 360349-89-9 610283-06-2 610282-08-4 610283-03-5 610283-10-8 610283-12-5 950584-34-6

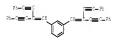
RL: PRP (Properties)

(experiment and calcn.; EDA study of π -conjugation in tunable bis(gem-diethynylethene) fluorophores)

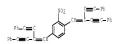
- RN 360549-89-9 CAPLUS
- CN Benzene, 1, 4-bis[4-phenyl-2-(2-phenylethynyl)-1-buten-3-yn-1-yl]- (CA INDEX NAME)



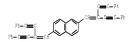
- RN 610283-06-2 CAPLUS
- CN Benzene, 1,3-bis[4-phenyl-2-(2-phenylethynyl)-1-buten-3-yn-1-yl]- (CA TNDEX NAME)



- RN 610283-08-4 CAPLUS
- CN Benzene, 2-nitro-1,4-bis[4-phenyl-2-(2-phenylethynyl)-1-buten-3-yn-1-yl]-(CA INDEX NAME)

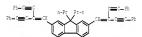


- RN 610283-09-5 CAPLUS
- CM Naphthalene, 2,6-bis[4-phenyl-2-(2-phenylethynyl)-1-buten-3-yn-1-yl]- (CA



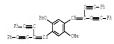
RN 610283-10-8 CAPLUS

CN 9H-Fluorene, 2,7-bis[4-phenyl-2-[2-phenylethynyl)-1-buten-3-yn-1-yl]-9,9-dipropyl- (CA INDEX NAME)



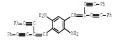
RN 610283-12-0 CAPLUS

CN Benzene, 1,4-dimethoxy-2,5-bis[4-phenyl-2-(2-phenylethynyl)-1-buten-3-yn-1yl]- (CA INDEX NAME)



RN 950584-34-6 CAPLUS

CN 1,4-Benzenediamine, 2,5-bis(4-phenyl-2-(2-phenylethynyl)-1-buten-3-yn-1-yl]- (CA INDEX NAME)



OS,CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD

(2 CITINGS)

REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 6 OF 22 CAPLUS COPYRIGHT 2009 ACS on SIN ACCESSION NUMBER: 2007:46877 CAPLUS Full-text

DOCUMENT NUMBER: 148:284829

TITLE: Synthesis of smallest unit model of graphite

intercalation compound and its possibility

AUTHOR(S): Ogoshi, Sensuke

CORPORATE SOURCE: Department of Applied Chemistry, Faculty of

Engineering, Osaka University, Japan

SOURCE: Asahi Garasu Zaidan Josei Kenkyu Seika Hokoku (2006)

01.03.07/1-01.03.07/8

CODEN: AGSHEN; ISSN: 0919-9179

PUBLISHER: Asahi Garasu Zaidan
DOCUMENT TYPE: Journal; (computer optical disk)

LANGUAGE: Japanese

OTHER SOURCE(S): CASREACT 148:284829

AB Graphite is perhaps the simplest layered structure. Many substances can be intercalated between layers of graphite. Upon intercalation, the graphite layers moved apart somewhat due to the intercalated atom. However, the layers still keep parallel each other which would be the key for the formation of intercalation compios. Thus, compost, having two aromatic rings, which can change the distance between the rings and keep parallel to each other, were designed and synthesized. The target compound was 1,8-bis[6-[1-naphthalenyl]-3-bexera-1,5-disyn/]antraceme.

IT 1007602-35-0P

 ${\tt RL: SPN (Synthetic preparation); PREP (Preparation)}$

(preparation of bis[(naphthalenyl)hexenediynyl]anthracene (smallest unit model for graphite intercalation compound)]

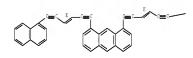
RN 1007602-95-0 CAPLUS

 ${\tt CN - Anthracene, 1,8-bis[(3E)-6-(1-naphthalenyl)-3-hexene-1,5-diyn-1-yl]- (CA)}\\$

INDEX NAME)

Double bond geometry as shown.

PAGE 1-A



PAGE 1-B



L10 ANSWER 7 OF 22 CAPLUS COPYRIGHT 2009 ACS on STM ACCESSION NUMBER: 2005:1004691 CAPLUS Full-text

DOCUMENT NUMBER: 143:306181

TITLE: Process for preparation of π-conjugated aromatic

ring-containing acetylene derivatives as organic

electroluminescent devices

INVENTOR(S): Sato, Funie; Takayama, Yuuki

PATENT ASSIGNEE(S): Nissan Chemical Industries, Ltd., Japan

SOURCE: PCT Int. Appl., 82 pp.

CODEM: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | | | KIN | ID DATE | | | APPLICATION NO. | | | | | DATE | | | | | | |
|----------------|-----|-------------------|-----|--------------|------|----------|-----------------|----------------|----------------|-----|-----|------|-------------------|----------|----------|----------------------------|---------------------|----|
| | | | | | | | | | | | | | | | | | | |
| WO 2005085176 | | | | A1 | | 20050915 | | | WO 2005~JP3950 | | | | | 20050308 | | | | |
| W: AE, AG, AL, | | AL, | AM, | ΑT, | AU, | AZ, | BA, | BB, | BG, | BR, | B₩, | ΒY, | BZ_{r} | CA, | CH, | | | |
| | | CN, | CO, | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EC, | EE, | EG, | ES, | FI, | GB, | GD, | |
| | | Œ, | GH, | GM, | HR, | HU, | ID, | IL, | IN, | IS, | JP, | ΚE, | KG, | K₽, | KR, | KZ_{r} | LC, | |
| | | lK, | LR, | LS, | LT, | LU, | LV, | MA, | MD, | MG, | MK, | MN, | \mathbb{MW}_{r} | MX, | MZ_{r} | NA, | NI, | |
| | | NO, | NZ, | OM, | PG, | PH, | PL, | PT, | RO, | RU, | SC, | SD, | SE, | SG, | SK, | SL, | SM, | |
| | | SY, | TJ, | ${\rm IM}_r$ | TN, | TR, | II, | IZ, | UA, | UG, | US, | UZ, | VC, | VN, | YU, | $Z \mathbb{A}_t$ | ${\rm ZM}_{\prime}$ | ZW |
| | RW: | ΒW, | GH, | GM, | KΕ, | LS, | MW, | MZ, | NA, | SD, | SL, | SZ, | TZ_{t} | UG, | ZM_{r} | ZW, | AM, | |
| | | AZ, | ΒY, | ΚG, | KZ, | MD, | RU, | IJ, | TM, | AT, | BΕ, | BG, | CH, | CY, | CZ_{r} | $\mathbb{DE}_{\mathbf{f}}$ | DK, | |
| | | \mathbb{EE}_{t} | ES, | FI, | FR, | GB, | GR, | HU, | IE, | IS, | IT, | LT, | LU, | MC, | NL_{r} | $\mathtt{PL}_{\mathbf{r}}$ | PT, | |
| | | RO, | SE, | SI, | SK, | TR, | BF, | ΒJ, | CF, | CG, | CI, | CM, | GA, | GN, | GQ, | GW, | \mathbb{M}_{*} | |
| | | MR, | NE, | SN, | TD, | TG | | | | | | | | | | | | |
| US 20070176164 | | | A1 | | 2007 | 0802 | | US 2007-591950 | | | | | 20070307 | | | | | |

JP 2004-65446

WO 2005-JP3950

A 20040309

W 20050308

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OTHER SOURCE(S): MARPAT 143:306181

OILLEN

PRIORITY APPLN. INFO.:

- AB This invention pertains to a method for producing x-conjugated aromatic ringcontaining acetyleme derivs. via coupling reaction in the presence of palladium and Cu(I) catalysts. For example, the compound I was prepared in a multi-step synthesis in good yield. The title compds. are useful as electroluminascent devices.
- IT 740810-65-59 740310-63-3P 884683-91-6P 864684-52-6E

RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; preparation of $\pi\mbox{-conjugated}$ aromatic ring-containing acetylene

derivs. as organic electroluminescent devices)

- RN 740810-65-5 CAPLUS
- CN 3-Butyn-2-ol, 4-[6-[(3E)-3-butyl-4-[2-[6-[(3E)-3-butyl-4-[2-[6-[2-[tris(1-methylethyl)silyl]ethynyl]-3-pyridinyl]sthynyl]-3-hepten-1-yn-1-yl]-3-pyridinyl]ethynyl]-3-hepten-1-yn-1-yl]-3-pyridinyl]-2-methyl- (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-B

- RN 740810-68-8 CAPLUS
- CN 3-Butyn-2-ol, 2-methyl-4-[5-[(3E)-3-propyl-4-[[5-[(3E)-3-propyl-4-[[5-[(1tis(1-methylethyl)silyl)ethynyl]-2-thienyl]-3-hepten-1-yn-1-yl]-2-thienyl]- (CA INCEX NAME)

Double bond geometry as shown.

$$\underset{\text{Ne}}{\overset{\text{Me}}{\longrightarrow}}\underset{\text{Og}}{\overset{\text{n-Pr}}{\longrightarrow}}$$

PAGE 1-B

- RN 864683-97-6 CAPLUS
- CN 3-Butyn-2-ol, 4-[5-[(3E)-4-[2-[5-[(3E)-4-[2-(5-ethynyl-2-thienyl)*ethynyl]-3-propyl-3-hepten-1-yn-1-yl]-2-thienyl]*ethynyl]-3-propyl-3-hepten-1-yn-1-yl]-2-thienyl]*expethyl- (CA INCEX NAME)

Double bond geometry as shown.

PAGE 1-B

- RN 864684-02-6 CAPLUS
- ${\tt CN} \qquad {\tt 3-Butyn-2-ol, \ 4-[6-[(3E)-3-butyl-4-[2-[6-[(3E)-3-butyl-4-[2-(6-ethynyl-4-[2-(6-ethynyl$ pyridinyl)ethynyl]-3-hepten-1-yn-1-yl]-3-pyridinyl]ethynyl]-3-hepten-1-yn-1-y1]-3-pyridiny1]-2-methyl- (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-B

IT 740810-66-6P 740810-63-9P 864664-06-09

464644-03-3P 864684-23-9P 864664-22-09

864684-23-10 864684-26-40 864684-27-50 864684-28-60 864684-29-70 864686-30-00

RL: DEV (Device component use); IMF (Industrial manufacture); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(preparation of π -conjugated aromatic ring-containing acetylene derivs. as organic

electroluminescent devices)

- RN 740810-66-6 CAPLUS
- CN 3-Butyn-2-ol, 4-[6-[(3E)-3-butyl-4-[2-[6-[4-[4]-4-[4-[4-[4]-4-[4-[4]-4-[4-[4]-4-[4-[4]-4-[4-[4]-4-[4-[4]-4-[4]-4-[4-[4]-4-[4]-4-[4-[4]-4buty1-4-[2-[6-[2-[tris(1-methylethyl)sily1]ethynyl]-3-pyridinyl]ethynyl]-3hepten-1-yn-1-yl]-3-pyridinyl]ethynyl]-3-hepten-1-yn-1-yl]-3pyridinyl]ethynyl]-3-hepten-1-yn-1-yl]-3-pyridinyl]-2-methyl- (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A

PAGE 1-C



- RN 740810-69-9 CAPLUS
- CN 3-Butyn-2-ol, 4-[5-[(3E)-4-[2-[5-[(3E)-5-ethyl-4-[2-[5-[(3E)-5-ethyl-3propyl-4-[2-[5-[2-[tris(1-methylethyl)silyl]ethynyl]-2-thienyl]ethynyl]-3penten-1-yn-1-yl]-2-thienyl]ethynyl]-3-propyl-3-penten-1-yn-1-yl]-2thienyl]ethynyl]-3-propyl-3-hepten-1-yn-1-yl]-2-thienyl]-2-methyl- (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-C

___Ne

- RN 864684-06-0 CAPLUS
- CN 2,1,3-Benrothiadiazole, 4-[(38]-3,4-dipropyl-6-[5-[2-[tris(1-methylethyl)silyl]ethynyl]-2-thienyl]-3-hexene-1,5-diyn-1-yl]-7-[(38)-3-propyl-4-[2-[5-[2-[tris(1-methylethyl)silyl]ethynyl]-2-thienyl]ethynyl]-3-hepten-1-yn-1-yl]- (CA INDEX NAME)

Double bond geometry as shown.

- RN 864684-09-3 CAPLUS
- CN Thieno[3,4-b]pyrazine, 5-[(3E)-3,4-dipropyl-6-(2-thienyl)-3-hexene-1,5-diyn-1-yl]-2,3-diphenyl-7-[(3E)-3-propyl-4-[2-(2-thienyl)ethynyl]-3-hepten-1-yn-1-yl]- (CA INDEX NAME)

Double bond geometry as shown.

- RN 864684-21-9 CAPLUS
- CM Thiophene, 2-[(3E)-3,4-dipropyl-6-[4-[(3E)-3-propyl-4-[2-[5-[2-[tris(1-methylethyl)silyl]ethynyl]-2-thienyl]ethynyl]-3-hepten-1-yn-1-yl]phenyl]-3-hevene-1,5-diyn-1-yl]-5-[2-[tris(1-methylethyl)silyl]ethynyl]- (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A

PAGE 1-B

- RN 864684-22-0 CAPLUS
- CN Benzene, 1-[(3E)-3,4-dipropyl-6-[4-[2-[tris[1methylethyl]silyl]ethynyl]phenyl]-3-hexene-1,5-diyn-1-yl]-4-[(3E)-3-propyl-4-[2-[4-[2-[tris[1-methylethyl]silyl]ethynyl]phenyl]ethynyl]-3-hepten-1-yn-1-yl]- (CA IDDEX NAME)

Double bond geometry as shown.

PAGE 1-A

RN 864684-23-1 CAPLUS

CN Thiophene, 2-[(3E)-3,4-dipropyl-6-[4-[2-[tris(1methylethyl)sily]]ethyyl]phenyl]-3-hexene-1,5-diyn-1-yl]-5-[(3E)-3-propyl-4-[2-[4-[2-[tris(1-methylethyl)sily]]ethyyl]phenyl]ethynyl]-3-hepten-1-yn-1-yl]- (CA INDEX NAME)

Double bond geometry as shown.

RN 864684-26-4 CAPLUS

CN Naphthalene, 2-[32]-3,4-dipropyl-6-[4-[2-[tris[1methylethyl]sily]]ethynyl]phenyl]-3-hexane-1,5-diyn-1-yl]-6-[32]-3-propyl-4-[2-[4-[2-[th-ethylethyl]sily]]ethynyl]phanyl]ethynyl]-3-heptan-1-yn-1-yl]- (CA IDDEX NAMEN)

Double bond geometry as shown.

PAGE 1-B

RN 864684-27-5 CAPLUS

CN Anthracene, 9-[(3E)-3,4-dipropyl-6-[4-[2-[tris(1-methylethyl)silyl]sthyyl]phenyl]-3-bexene-1,5-diyn-1-yl]-10-[(3E)-3-propyl-4-[2-[4-[2-[tris(1-methylethyl)silyl]ethynyl]phenyl]ethynyl]-3-hepten-1-yn-1-yl]- (CA INDEX NAME)

Double bond geometry as shown.

RN 864684-28-6 CAPLUS

CN 2,1,3-Benzothiadiazole, 4-[(3E)-3,4-dipropyl-6-[4-[2-[tris(1methylethyl)silyl]ethyyl]phenyl]-3-hexene-1,5-diyn-1-yl]-7-[(3E)-3-propyl-4-[2-[4-[2-[tris(1-methylethyl)silyl]ethyyl]phenyl]ethynyl]-3-hepten-1-yn-1-yl]- (CA INDEX NAME)

Double bond geometry as shown.

RN 864684-29-7 CAPLUS

CN Pyridazine, 3-[(38)-3,4-dipropyl-6-[4-[2-[tris|1methylethylisily]]ethyryl]phenyl]-3-hexene-1,5-diyn-1-yl]-6-[(32)-3-propyl-4-[2-[4-[2-[tris|(1-methylethyl)silyl]ethyryl]phenyl]ethyryl]-3-hepten-1-yn-1-yl]- (CR IDEX NAME)

Double bond geometry as shown.

PAGE 1-B

RN 864684-30-0 CAPLUS

CN Benzene, 1-[(38)-3,4-dipropyl-6-[4-[2-[tris(1methylethyl)siy]]ethynyl]phenyl]-3-hexene-1,5-diyn-1-yl]-3-[(38)-5-ethyl-3-pcpyl-4-[2-[4-[2-[tris(1methylethyl)siy]]ethynyl]phenyl]ethynyl]phenyl]ethynyl]-3penten-1-yn-1-yl]-5-[(38)-3-propyl-4-[2-[4-[2-[tris(1methylethyl)siy]]ethynyl]phenyl]ethynyl]-3-hepten-1-yn-1-yl]- (CA INDEX NAME)

Double bond geometry as shown.

n-Pr (=C-Si(Pr-1))

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

DOCUMENT NUMBER: 143:333
TITLE: Cytotoxicities, cell cycle and caspase evaluations of

1,6-diaryl-3(2)-hexen-1,5-diynes, 2-(6-aryl-3(2)-hexen-1,5-diynyl)anilines and their

derivatives

AUTHOR(S): Lin, Chi-Fong; Lo, Yu-Hsiang; Hsieh, Ming-Chu; Chen,

Yi-Hua; Wang, Jeh-Jeng; Wu, Ming-Jung
CORPORATE SOURCE: School of Chemistry, Kaohsiung Medical University,

Kaohsiung, Taiwan

SOURCE: Bicorganic & Medicinal Chemistry (2005), 13(10),

3565-3575

CODEN: BMECEP; ISSN: 0968-0896

PUBLISHER: Elsevier Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 143:333

CR - C = C CR - C = C Re = CR - C RE = CR

AB A series of compds, showed growth inhibition effects on a full panel of 60 human cancer cell lines, and most of the average IC50 values of the indicated

analogs were from 0.01 to 96.6 µM, in which a 2-thienyl analog and the thioanisole analog revealed the highest cyctoxic activity with the cancer cell lines at 10-7% concentration range. During the cell cycle enal,, a moderate to high apoptotic progress induction was shown by several compared with the control, which 2-(6-(2-thieny))-3(1)-hexen-1,6-dipnyl)aniline [I] showed the highest apoptotic effect. I and the thicanisole analog displayed a significant G2/M phase arrest in the cell growth cycle compared with other derivs, which the proportions of the G2/M phase cells were accumulated to 71.5% and 82.6% resp. Moreover, the color-inertic assay of the I and the thioanisole analog also provided advanced evidence to the relationship between the compils. and the caspase-3 enzyme, which was one of the major promoters of apoptotic effect.

IT 852619-13-78

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(cytotoxicities, cell cycle and caspase evaluations of

1,6-diaryl-3(Z)-hexen-1,5-diynes,

2-(6-aryl-3(Z)-hexen-1,5-diynyl)anilines and their derivs.)

RN 852619-13-7 CAPLUS

CN Benzenamine, 2,2'-[1,4-phenylenedi-(3Z)-3-hexene-1,5-diyne-6,1-diyl]bis-(9CI) (CA INDEX NAME)

Double bond geometry as shown.

OS.CITING REF COUNT:

THERE ARE 15 CAPLUS RECORDS THAT CITE THIS

RECORD (15 CITINGS)

REFERENCE COUNT:

35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 9 OF 22 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2005:34387 CAPLUS Full-text

DOCUMENT NUMBER: 142:135171

TITLE: Liquid crystalline compound having perfluoroalkyl side

chains, liquid crystal composition containing these compounds and their polymers

INVENTOR(S): Sasada, Yasuyuki; Yanai, Motoki

PATENT ASSIGNEE(S): Chisso Petrochemical Corporation, Japan; Chisso

Corporation

SOURCE: U.S. Pat. Appl. Publ., 56 pp.

DURCE: U.S. Pat. App. CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----------------|------|----------|-----------------|----------|
| | | | | |
| US 20050007541 | A1 | 20050113 | US 2004-873280 | 20040623 |
| US 7070838 | B2 | 20060704 | | |

JP 2005035985 A 20050210 JP 2004-183449 20040622
PRIORITY APPIN. INFO.: JP 2003-177672 A 20030623
OTHER SOURCE(S): MARPAT 142:135171

$$P = 22 \left\{ A1 - 21 \right\} \left\{ A1 - 21 \right\} \left\{ A1 - A1 \right\} \left\{ A1 +$$

- AB Liquid crystalline compds. I [P = CX22:CX1C02, Q1, CX22:CX20, p-CX22:CX2COC6H4, or Q2; A1 = 1,4-cyclohexenylene, 1,4-phenylene, naphthalene-2,6-diyl, tetrahydronaphthalene-2,6-diyl, fluorene-2,7-diyl, or bicyclo[2.2.2]octane-1,4-diyl, where any CH2 of these rings is optionally replaced by O, any CH: is optionally replaced by N:, and any H is optionally replaced by halo, C1-5 alkyl, or halogenated alkyl; Z1 = single bond, CH2CH2, CF2CF2, (CH2)4, CH20, OCH2, CO2, OCO, CH:CH, CF:CF, C.tplbond.C, C.tplbond.CCO2, OCOC.tplbond.C, CH:CHCO2, OCOCH:CH, CH2CH2CO2, OCOCH2CH2, C.tplbond.CCH:CH, CH:CHC.tplbond.C, OCF2, or CF2; Z2 = single bond or C1-20 alkylene, where any CH2 is optionally replaced by O, S, CO2, or OCO; X1 = H, halo, CF3 or C1-5 alkyl, X2 = H, halo, or C1-5 alkyl; m, n = 0-2; $m + n \le 4$; p= 2 or 3; q = 0 or 1; when Z1 is C.tplbond.C, P = Q1, CX22:CX20, p-CX22:CX2COC6H4] are prepared The invention further provides for polymerization of a composition containing ≥1 of I to give a film, an optical anisotropic material, a 1/4 or 1/2 wavelength functional plate, an optical compensation element, an optical element or a liquid crystal display element. A typical liquid crystalline compound (II) was manufactured by esterification of 2-(trifluoromethyl)-1,4-dihydroxybenzene with 4-16-(acryloyloxy)hexyloxy]benzoic acid in THF in the presence of 4dimethylaminopyridine and 1-ethyl-3-(3-dimethylaminopropyl)carbodiinide overnight. A typical liquid crystalline polymer was manufactured by photopolymn. of 80 parts II in a mixture containing 4-(trans-4propylcyclohexyl) cyanobenzene 5, 4-(trans-4-pentylcyclohexyl) cyanobenzene 5, 4-(trans-4-heptylcyclohexyl)cyanobenzene 5, and 4'-(trans-4-heptylcyclohexyl)-4-cvano-1.1'-biphenvl 5 parts in the presence of Irgacure 907 as a film on a polyimide alignment film attached to a glass substrate.
- IT 1056056-84-5

RL: PRPH (Prophetic)

(Liquid crystalline compound having perfluoroalkyl side chains, liquid crystal composition containing these compounds and their polymers)

RN 1056056-84-8 CAPLUS

CN INDEX NAME NOT YET ASSIGNED

Double bond geometry as shown.

PAGE 1-B PAGE 1-B



OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD

(3 CITINGS

L10 ANSWER 10 OF 22 CAPLUS COPYRIGHT 2009 ACS on SIN ACCESSION NUMBER: 2004:566840 CAPLUS Full-text DOCUMENT NUMBER: 141:261152

AUTHOR(S): Hwang, Gil Tae; Kim, Byeang Hyean

CORPORATE SOURCE: National Research Laboratory, Department of Chemistry,

Division of Molecular and Life Sciences, Pohang University of Science and Technology, Pohang, 790-784,

S. Korea

SOURCE: Organic Letters (2004), 6(16), 2669-2672

CODEN: ORLEF7; ISSN: 1523-7060
PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB We have synthesized a new family of n-conjugated dendrimers that are based on bis(enedjynyl)lenzene units by using both divergent and convergent approaches. The compds. at all three generations have strong bluish-green fluorescence, especially the third-generation dendrimer, which has the highest extinction coefficient and quantum efficiency in this series.

IT 754233-15-38 754233-16-49 754222-17-59

754233-14-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(convergent and divergent synthesis of π -conjugated dendrimers based on bis(enediynyl)benzene units)

RN 754233-15-3 CAPLUS

CN Benzene, 1,4-bis[4-[4-(2,2-dibromoethenyl)phenyl]-2-[[4-(2,2-dibromoethenyl)phenyl]ethynyl]-1-buten-3-ynyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

Br2C= CB

Br2C= CB

CC= CB-CC

CC= CC-CC

CC= CC-CC

CC

_CH=CBr2

RN 754233-16-4 CAPLUS

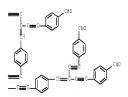
CN Benzene, 1,4-bis[4-[4-[4-[4-(2,2-dibromoethenyl)phenyl]-2-[[4-(2,2-dibromoethenyl)phenyl]-2-[[4-(2,2-dibromoethenyl)phenyl]-2-[[4-(2,2-dibromoethenyl)phenyl]-2-[[4-(2,2-dibromoethenyl)phenyl]-2-[14-(2,2-dibromoethenyl)phenyl]-1-buten-3-yvyl]-[betyl

PAGE 1-A

PAGE 1-B

- RN 754233-17-5 CAPLUS
- CN Benzaldehyde, 4,4'-[3-[[4-[4-(4-formylphenyl)-2-[(4-formylphenyl)ethynyl]l-buten-3-ynyl]phenyl]methylene]-1,4-pentadiyne-1,5-diyl]bis- (9CI) (CA INDEX NAME)

- RN 754233-18-6 CAPLUS
- CN Benzalcényde, 4,4'-[13-[4-[4-[4-[4-(4-formylphenyl)-2-[(4-formylphenyl)-1-buten-3-nyn]]phenyl]-2-[[4-[4-(4-formylphenyl)-1-buten-3-nyn]]phenyl]pethynyl]-1-buten-3-nynl]phenyl]phenyl]phenyl]methylphen]-1,4-pentadiyne-1,5-diyl]bis[4,1-phenylene]3-[(4-formylphenyl)-3-buten-1-nyn-4,1-diyl]]bis[901] (CA INGEN MANE)



CS.CITING REF COUNT: 17 THERE ARE 17 CAPLUS RECORDS THAT CITE THIS RECORD (17 CITINGS)

REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 11 OF 22 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2004:480115 CAPLUS Full-text

DOCUMENT NUMBER: 141:190674

TITLE: Synthesis of Conjugated Oligomers Having Aromatic and

Enediyne Units Alternately in the Backbone that Show

Intense Fluorescence Emission

AUTHOR(S): Nakano, Yuuki; Ishizuka, Kenichi; Muraoka, Kenji;

Ohtani, Hiroyuki; Takayama, Yuuki; Sato, Fumie Department of Biomolecular Engineering, Tokyo

Institute of Technology, Midori, Yokohama, Kanagawa,

226-8501, Japan

SOURCE: Organic Letters (2004), 6(14), 2373-2376

CODEN: ORLEF7; ISSN: 1523-7060

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

CTHER SOURCE(S): CASREACT 141:190674

GT

CORPORATE SOURCE:

AB Synthesis and fluorescence properties of π-conjugated compds. I (n = 1 - 3; X = 1,4-phenylene, 2,5-pyridine, 2,5-thiophene; R = n-Pr, n-Bu) having

alternately an aromatic or heteroarom. ring and an enediyne unit in the backbone are described.

IT 740810-63-69 747910-65-5P 740810-68-8P

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and absorption and fluorescence spectra of conjugated oligomers $% \left\{ 1,2,...,2,...\right\}$

having aromatic (or heteroarom.) and enedigne units alternately in the backbone)

- 740810-62-2 CAPLUS
- CN 3-Butyn-2-o1, 2-methyl-4-[4-[(3E)-3-propyl-4-[[4-[(3E)-3-propyl-4-[[4-[[tris(1-methylethyl)silyl]ethynyl]phenyl]ethynyl]-3-hepten-1-yn-1yl]phenyl]ethynyl]-3-hepten-1-yn-1-yl]phenyl]- (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-B

- RN 740810-65-5 CAPLUS
- CN 3-Butyn-2-ol, 4-[6-[(3E)-3-butyl-4-[2-[6-[(3E)-3-butyl-4-[2-[6-[2-[tris(1-methylethyl)sily]]-3-pyridinyl]-3-hepten-1-yn-1-yll-3-pyridinyl]ethynyl]-3-hepten-1-yn-1-yll-3-pyridinyl]ethynyl]-3-hepten-1-yn-1-yll-3-pyridinyl]-2-methyl- (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-B

- RN 740810-68-8 CAPLUS
- CN 3-Butyn-2-ol, 2-methyl-4-[5-[(3E)-3-propyl-4-[[5-[(3E)-3-propyl-4-[[5-[[tris(1-methylethyl)silyl]ethynyl]-2-thienyl]ethynyl]-3-hepten-1-yn-1-yl]-2-thienyl]ethynyl]-3-hepten-1-yn-1-yl]-2-thienyl]- (CA INCEX NAME)

Double bond geometry as shown.

$$\underset{Ne}{\text{Ne}} \bigcirc \text{S} \qquad \underset{n-\text{Fr}}{\overset{n-\text{Pr}}{\Rightarrow}} \qquad \underset{n-\text{Pr}}{\overset{n-\text{Pr}}{\Rightarrow}} \qquad \underset{n-\text{$$

PAGE 1-B

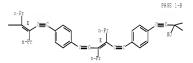
II 700610-83-79 763409-65-80 740810-69-90 RL: PRO (Properties); SPM (Synthetic preparation); PREP (Preparation) (preparation and absorption and fluorescence spectra of conjugated oligomers

having aromatic (or heteroarom.) and enedigne units alternately in the backbone)

- RN 740810-63-3 CAPLUS
- CN 3-Butyn-2-ol, 2-methyl-4-[4-[(3E)-3-propyl-4-[[4-[(3E)-3-propyl-4-[[4-[(3E)-3-propyl-4-[[4-[(tris-1-methyle:thyl)sily])]benyl]benyl]ethynyl]-3hepten-1-yn-1-yl]phenyl]ethynyl]-3-hepten-1-yn-1-yl]phenyl]ethynyl]-3hepten-1-yn-1-yl]phenyl]- (CA_NDEX_NAME)

Double bond geometry as shown.

PAGE 1-A



PAGE 1-C



- RN 740810-66-6 CAPLUS
- CN 3-Butyn-2-ol, 4-[6-[138]-3-butyl-4-[2-[6-[138]-3-butyl-4-[2-[6-[26]-138]-3-butyl-4-[2-[6-[2c]-tris|1-methylethyl]silyl]sthynyl]-3-pyridinyl]sthynyl]-3-pyridinyl]ethynyl]-3-pyridinyl]ethynyl]-3-pyridinyl]ethynyl]-3-pyridinyl]ethynyl]-3-hpyten-1-yn-1-yl]-3-pyridinyl]ethynyl]-3-hpyten-1-yn-1-yl]-3-pyridinyl]-2-methyl- (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-B



- RN 740810-69-9 CAPLUS
- CM 3-Butyn-2-ol, 4-[5-[(3E)-4-[2-[5-[(3E)-5-ethyl-4-[2-[5-[(3E)-5-ethyl-3-propyl-4-[2-[5-[(3E)-5-ethyl-3-propyl-4-[2-[5-[(3E)-5-ethyl-3-propyl-3-penten-1-yn-1-yl]-2-thienyl]ethynyl]-3-propyl-3-penten-1-yn-1-yl]-2-thienyl]ethynyl]-3-propyl-3-penten-1-yn-1-yl]-2-thienyl]ethynyl]-3-propyl-3-penten-1-yn-1-yl]-2-thienyl]-2-pethyl-(CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-B

PAGE 1-C

__Me

OS.CITING REF COUNT: 20 THERE ARE 20 CAPLUS RECORDS THAT CITE THIS RECORD (20 CITINGS)

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

110 ANSWER 12 OF 22 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2004:328526 CAPLUS Full-text
DOCKMENT NUMBER: 141:54000
TITLE: Solid-phase synthesis of oligo(triacetylene)s and

oligo(phenylenetriacetylene)s employing Socogashira and Cadiot-Chodkiewicz-type cross-coupling reactions AUTHOR(S): Utesch, Wils F.; Diederich, Francois; Boudon, Corinne;

Gisselbrecht, Jean-Paul; Gross, Maurice

CORPORATE SOURCE: Laboratorium fuer Organische Chemie, ETH-Hoenggerberg,

HCI, Zurich, CH-8093, Switz.

SOURCE: Helvetica Chimica Acta (2004), 87(3), 698-718

CODEN: HCACAV; ISSN: 0018-019X Verlag Helwetica Chimica Acta

PUBLISHER: Verlag Helvetica C DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 141:54000

AB The polymer-supported synthesis of poly(triacetylene)-derived monodisperse oligomers is described, using PAC-ostalyzed Sonogashira and Cadiot-Chodkiewicz-type cross-couglings as the key steps in the construction of the acetylenic soaffolds. Merrifield resin functionalized with a 1-(4-iodoary)\triazene linker was chosen as the polymeric support. The linker selection was made based on the results of several model studies in the liquid phase. For the solid-support synthesis of p-

[IGBMC.tplbond.CC(CH2OSIMCOMES):CC(EM2OSIMCOMes)C.tplbond.C]nsiMe3 [I, n = 2-4] a set of only three reactions was required: (i) P60-catalyzed Scnogashira cross-coupling, (ii) Me3Si-alkyme deprotection by protodesilylation, and (iii) cleavage of the linker with liberation of I. The longest-wavelength absorption maxima of I [n = 1-4] shift bathochromically with increasing oligomeric length, from $\lambda_{\rm BMX}$ 337 nm (I, n = 1) to 384 nm (I, n = 4). Based on the electronic absorption data, the effective conjugation length (ECL) of the oligo(phenylene triacetylene)s is estimated to involve at least four monomer units and 40 C-atoms. π -Electron conjugation in these oligomers is less efficient than in

Me3Si[C6H4C.tplbond.CC(CH2OSiMe2OMe3]:C(CH2OSiMe2CMe3)C.tplbond.C] nsiMe3 (II) due to poor transmittance of κ -electron delocalization by the Ph rings inserted into the oligomeric backbone. Similar conclusions were drawn from the electrochem. properties of the two oligomeric series as determined by cyclic (CV) and rotating-disk voltamentry. In sharp contrast to II, I are strongly fluorescent, with the highest quantum yield $\Phi F = 0.69$ measured for I [n = 3]. Mhereas the Sonogashira cross-coupling on solid support proceeded smoothly, optimal conditions for alkyne-alkyne cross-coupling reactions employing P3O-catalyzed Cadiot-Chockiewicz conditions still remain to be developed.

IT 554453-63-TP 554459-64-28

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (solid-phase synthesis of oligo(triacetylene)s and oligo(phenylenetriacetylene)s by Sonogashira and Cadiot-Chodkiewicz cross-counling reactions)

RN 554459-63-1 CAPLUS

CN 4,9-Dioxa-3,10-disilatodec-6-ene, 6-[[4-[3E]-6-[4-[(3E]-3,4-bis][[[1,1-dinethylethyl]dinethylsily]]-ox-level planethylethyl]-idinethylsily]-ox-level planethylsily]-ox-level planethylsily]-ox-l

Double bond geometry as shown.

PAGE 1-B

RN 554459-64-2 CAPLUS

CN 4,3-Dioxa-3,10-disiladodec-6-ene, 6-[(4-[(3E)-6-[4-[(3E)-3,4-bis][[(1,1-dimethylathyl)dimethylathyl)-6-(4-dioxphenyl)-3-hexme-1,5-diynyl]phenyl]-3,4-bis[[([(1,1-dimethylathyl)dimethylathyl)exyl]exylphenyl]-3-hexme-1,5-diynyl]phenyl]ethynyl]-7-[(4-[(3E)-3,4-bis[[([(1,1-dimethylathyl)dimethylathyl)dimethylathyl)dimethylathyl]-6-(trimethylathyl)dimethylathyl]dimethylathyl]-6-[trimethylathyl]-3-hexme-1,3-diynyl]phenyl]ethynyl]-2,2,3,3,10,10,11,11-ottamethyl-, (6E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-B PAGE 1-B

IT 704916-29-09

RL: SPN (Synthetic preparation); PREP (Preparation) (solid-phase synthesis of oligo(triacetylene)s and oligo(phenylenetriacetylene)s by Sonogashira and Cadiot-Chodkiewicz cross-coupling reactions)

RN 704916-29-0 CAPLUS

CN 4,9-Dioxa-3,10-disiladodec-6-ene, 6,6'-(1,4-phenylenedi-2,1ethynediyl)bis[7-[(4-iodophenyl)ethynyl]-2,2,3,3,10,10,11,11-octamethyl-, (6E,6°E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

SOURCE:

THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD OS.CITING REF COUNT:

(6 CITINGS)

REFERENCE COUNT: 93 THERE ARE 93 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

110 ANSWER 13 OF 22 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2003:827385 CAPLUS Full-text

DOCUMENT NUMBER: 140:59755

TITLE: Synthesis and reactivity of dinuclear rhodium complexes with Rh:C:CHR and Rh:C:C:CRR' units as

building blocks

AUTHOR(S): Callejas-Gaspar, Berta; Laubender, Matthias; Werner,

Helmut

CORPORATE SOURCE: Institut fuer Anorganische Chemie der Universitaet

Wuerzburg, Wuerzburg, D-97074, Germany

Journal of Organometallic Chemistry (2003), 684(1-2),

144-152

CODEN: JORCAI; ISSN: 0022-328X

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 140:59755

AB The reaction of [Rh{K2-O2S(O)CF3}(PiPr3)2] (1) with ethynylferrocene in the presence of KF affords the substituted vinylidene complex trans[RhF(:C:CH(CSH4)Fe(C5H5)](PiPr3)2] (2) which upon treatment with the butadiyne derivative Ph3SnC.tplbond.C-C.tplbond.CSnPh3 produces the chain-like compound trans-[(u-C.tplbond.C-

C.tplbond.C)[Rh(:C:CH(SH4)Fe(CSH5))[PiPr3)2]2] [7]. The triflato complex 1 reacts with 1,4-6684(Ctplbond.CH)2 to give the dinuclear compound trans-[4p-1,4-6684(CH:C)2]{Rh[n]-OS[0](273)[PiPr3]2]2] [3] which in the presence of KF undergoes a ligand exchange to give the corresponding difluor derivative trans-[4p-1,4-6684(CH:C)2]{RhP[PiPr3]2]2] [4]. From 4 and RC.tplbond.CSnPh3

Trans-(p-1,4- cws(cut:1)2)400 (circh)2/2] (4). From 4 and nt.tpicodo.cshm:

(R= CH3, CGS1) the corplexes raras-(p-1,4CGH4(CH:Cr:1)2){Rh(C.tpicodo.CR) (PiPr3)2/2] (5) and (6), in which a CGH4 unit
bridges two alkynyl(vinylidene)rhodium[1] fragments, are obtained. Both 6 and
7 react with CO by migratory insertion of the winylidene units into the
alkynyl-metal bonds to afford the dinuclear corplexes trans-(p-(z,Z)C(CGE(SH)Pe(CSH5))]Rh(CO)(PiPr3)2/2] (8) and trans-(p-(z,Z)C(CGE(SH)Pe(CSH5))Rh(CO)(PiPr3)2/2] (9), in which
an unusual CO or C4(CGH)CC ctplbond.CPh)(Rh(CO)(PiPr 3)2/2] (9), in which
an unusual CO or C4(CGH)CC dhain bridges the two rhodium centers. The
reactions of (RhC(PiPr3)2/2) (10) with the functionalized diynes 1,1',4,4'CGH4(GH2)(C-(Pbord.CH2) and 1,4-CGH4(CPh)(Crtplbord.CH2) lead, via the
corresponding diyne-retal species (11) and (12) as intermediates, to the
formation of the bis [vinylidene] complexes (3) and (14), the latter of which
reacts with a cdick Al203 by e ulimination of water to dive the novel themylene-

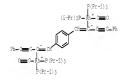
C6H4(CPh:C:C:)2}{RhCl(PiPr3)2}2] (15) in 80% yield. II 639078-96-9F

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation and reactivity of dinuclear rhodium carbene and alkynyl

bridged bis(allenylidenerhodium) compound [{µ-1,4-

complexes)
RN 639078-96-9 CAPLUS

CN Rhodium, dicarbonyl[µ-[1,4-phenylenebis[(12]-1-[phenylethynyl]-2,1etherediyl]]]tetrakis[tris[1-methylethyl]phosphine]di-, stereoisomer (9CI) (CA INDEX NAME)



OS.CITING REF COUNT:

THERE ARE 17 CAPLUS RECORDS THAT CITE THIS

RECORD (17 CITINGS)

REFERENCE COUNT:

3 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 14 OF 22 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2003:648967 CAPLUS Full-text

DOCUMENT NUMBER: 139:308866 TITLE: Synthesis:

Synthesis and photophysical studies of bis-enedignes

as tunable fluorophores

AUTHOR(S): Hwang, Gil Tae; Son, Hyung Su; Ku, Ja Kang; Kim,

Byeang Hyean

CORPORATE SOURCE: National Research Laboratory, Center for Integrated

Molecular Systems, Department of Chemistry, Division of Molecular and Life Sciences, Pohang University of Science and Technology, Pohang, 790-784, S. Korea

SOURCE: Journal of the American Chemical Society (2003),

125(37), 11241-11248

CODEN: JACSAT; ISSN: 0002-7863 American Chemical Society

CASREACT 139:308866

PUBLISHER: American Cher DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S):

AB We have synthesized a family of bis-enediynes by two complementary Pd/Cucatalyzed Sonogashira cross-coupling methods. One is a modified Sonogashira
reaction between a NNS-protected tetraalkyne and various aromatic browinds to
afford bis-enediynes bearing different peripheral aryl units. The other, the
reaction of bifunctional 1,1-dibronc-1-alkenes with phenylacetylene, afforded
a series of bis-enediynes bearing various core aryl groups. These chemical
modifications to the core and periphery of bis-enediynes with perhipment aryl
groups show a large Stokes shift of about 50-110 nm when compared to the lessconjugated TMS-protected bis-enediynes. Absorptions and emissions of other
bis-enediyness were red-shifted relative to those of (4-phenyl-2-phenyl-thynyl1-buten-3- ynyl)benzene. Substantial increases in fluorescence quantum yields
are observed as a result of extending the s-conjugation. The emission
vavelenoth of the bis-enediynes was tallored from indigo blue to reddish-

orange, suggesting that the color of emission can be tunable by modification

of the core and/or peripheral units.

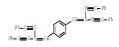
II 26049-89-89 160541-30-27 360549-31-32 360549-32 360549-31-32 360549-31-32 360549-31-32 360549-31-32 360549-31-32 360549-31-32 360549-31-32 360549-31-32 360549-31-32 360549-31-32 360549-31-32 360549-31-32 360549-31-32 360549-31-32 360549-360549-31-32 360549-31-32 360549-31-32 360549-31-32 360549-31-32 360549-31-32 360549-31-32 360549-31-32 360549-31-32 360549-31-32 360549-31-32 360549-31-32 360549-31-32 360549-31-32 360549-31-32

RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(dye; preparation and photophys, properties of bis-enedignes as tunable fluorophores)

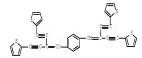
RN 360549-89-9 CAPLUS

CN Benzene, 1,4-bis[4-phenyl-2-(2-phenylethynyl)-1-buten-3-yn-1-yl]- (CA TNDEX NAME)

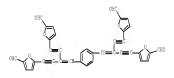


RN 360549-90-2 CAPLUS

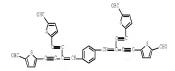
CN Thiophene, 2,2'-[1,4-phenylenebis[3-(2-thienylethynyl)-3-buten-1-yne-4,1-diyl]]bis-(9CI) (CA INDEX NAME)



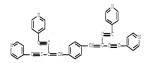
- RN 360549-91-3 CAPLUS
- CN 2-Furancarboxaldehyde, 5,5'-[1,4-phenylenebis[3-[(5-formyl-2-furanyl)ethynyl]-3-buten-1-yne-4,1-diyl]]bis- (9CI) (CA INDEX NAME)



- RN 360549-92-4 CAPLUS
- CN 2-Thiophenecarboxaldehyde, 5,5'-[1,4-phenylenebis[3-[(5-formyl-2-thienyl)ethynyl]-3-buten-1-yne-4,1-diyl]]bis- (9CI) (CA INDEX NAME)

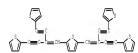


- RN 360549-93-5 CAPLUS
- CN Pyridine, 4,4'-[1,4-phenylenebis[3-(4-pyridinylethynyl)-3-buten-1-yne-4,1-diyl]]bis- (9CI) (CA INDEX NAME)



- RN 360549-94-6 CAPLUS
- CN Thiophene, 2,5-bis[4-phenyl-2-(2-phenylethynyl)-1-buten-3-yn-1-yl]- (CA INDEX NAME)

- RN 360549-95-7 CAPLUS
- CN Thiophene, 2,5-bis[4-(2-thienyl)-2-[2-(2-thienyl)ethynyl]-1-buten-3-yn-1-yl]- (CA INDEX NAME)



- RN 360549-96-8 CAPLUS
- CN 2-Furancarboxaldehyde, 5,5'-[2,5-thiophenediylbis[3-[(5-formyl-2-furanyl)ethynyl]-3-buten-1-yne-4,1-diyl]]bis-[9CI] (CA INDEX NAME)



- RN 360549-97-9 CAPLUS
- CN 2-Thiophenecarboxaldehyde, 5,5'-[2,5-thiophenediylbis[3-[(5-formyl-2-thienyl)ethynyl]-3-buten-1-yne-4,1-diyl]]bis- (9CI) (CA INDEX NAME)



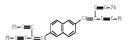
- RN 360549-98-0 CAPLUS
- CN Pyridine, 4,4'-[2,5-thiophenediylbis[3-(4-pyridinylethynyl)-3-buten-1-yne-4,1-diyl]]bis- (9CI) (CA INDEX NAME)



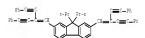
- RN 610283-06-2 CAPLUS
- CN Benzene, 1,3-bis[4-phenyl-2-(2-phenylethynyl)-1-buten-3-yn-1-yl]- (CA INDEX NAME)

- RN 610283-08-4 CAPLUS
- CN Benzene, 2-nitro-1,4-bis[4-phenyl-2-(2-phenylethynyl)-1-buten-3-yn-1-yl]-(CA INDEX NAME)

- RN 610283-09-5 CAPLUS
- CN Naphthalene, 2,6-bis[4-phenyl-2-(2-phenylethynyl)-1-buten-3-yn-1-yl]- (CA INDEX NAME)



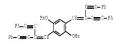
- RN 610283-10-8 CAPLUS
- CN 9H-Fluorene, 2,7-bis[4-phenyl-2-(2-phenylethynyl)-1-buten-3-yn-1-yl]-9,9dipropyl- (CA INDEX NAME)



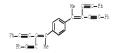
- RN 610283-11-9 CAPLUS
- CN Anthracene, 9,10-bis[4-phenyl-2-(2-phenylethynyl)-1-buten-3-yn-1-yl]- (CA INDEX NAME)



- RN 610283-12-0 CAPLUS
- CN Benzene, 1,4-dimethoxy-2,5-bis[4-phenyl-2-(2-phenylethynyl)-1-buten-3-yn-1-yl]- (CA INDEX NAME)



- RN 610283-13-1 CAPLUS
- CN Benzene, 1,4-bis[1-methyl-4-phenyl-2-(2-phenylethynyl)-1-buten-3-yn-1-yl](CA INDEX NAME)



OS.CITING REF COUNT: 44 THERE ARE 44 CAPLUS RECORDS THAT CITE THIS

RECORD (44 CITINGS)

REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 15 OF 22 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2003:424686 CAPLUS Full-text

DCCUMENT NUMBER: 139:150012

TITLE: Synthesis of Highly Fluorescent Y-Envne Dendrimers

with Four and Six Arms

AUTHOR(S): Kaafarani, Bilal R.; Wex, Brigitte; Wang, Fei;

Catanescu, Otilia; Chien, L. C.; Neckers, Douglas C. CORPORATE SCURCE: Center for Photochemical Sciences, Bowling Green State

University, Bowling Green, CH, 43403, USA

SCURCE: Journal of Organic Chemistry (2003), 68(13), 5377-5380
CODEN: JOCEAH; ISSN: 0022-3263

CODEN: JOCEAH; ISSN: UU22-320

PUBLISHER: American Chemical Society

DCCUMENT TYPE: Journal LANGUAGE: English

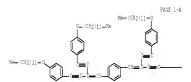
AB A first generation of dendrimeric Y-enymes with extended flexible chains was synthesized using Sonogashira coupling. Dendrimers 9 and 10 are highly fluorescent in the solid state and in solution

IT 569670-22-0P 569670-23-1P

RL: PRP (Properties); SPM (Synthetic preparation); PREP (Preparation)
(synthesis of highly fluorescent Y-enyne dendrimers with four and six
arms)

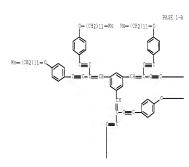
RN 569670-22-0 CAPLUS

CN Benzene, 1,4-bis[4-[4-(dodecyloxy)phenyl]-2-[[4-(dodecyloxy)phenyl]-1-buten-3-ynyl]- (9CI) (CA INDEX NAME)



RN 569670-23-1 CAPLUS

CN Benzene, 1,3,5-tris[4-[4-(dodecyloxy)phenyl]-2-[[4-(dodecyloxy)phenyl]ethynyl]-1-buten-3-ynyl]- (9CI) (CA INDEX NAME)



PAGE 1-B

OS.CITING REF COUNT: 16 THERE ARE 16 CAPLUS RECORDS THAT CITE THIS

RECORD (16 CITINGS)

THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: 41 RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

PAGE 2-A

L10 ANSWER 16 OF 22 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2003:234291 CAPLUS Full-text

139:85055 DOCUMENT NUMBER:

TITLE: Acetylenic scaffolding on solid support:

Poly(triacetylene)-derived oligomers by Sonogashira and Cadiot-Chodkiewicz-type cross-coupling reactions

AUTHOR(S): Utesch, Nils F.; Diederich, Francois CORPORATE SOURCE: Laboratorium fur Organische Chemie, ETH-Honggerberg,

HCI, Zurich, CH-8093, Switz.

Organic & Biomolecular Chemistry (2003), 1(2), 237-239 SOURCE:

CODEN: OBCRAK: ISSN: 1477-0520 Royal Society of Chemistry

PUBLISHER: DOCUMENT TYPE: Journal LANGUAGE: English OTHER SOURCE(S): CASREACT 139:85055

AB Synthesis of poly(triacetylene)-derived oligomers by Pd(0)-catalyzed Sonogashira and Cadiot-Chodkiewicz-type cross-coupling reactions on solid support is reported. Oligo(phenylene triacetylene)s, e.g., I[4-C6H4C.tplbond.CCR:CRC.tplbond.C]nSiMe3 (R = CH2OSiButMe2, n = 1, 2, 3, 4) members of a new class of linearly π-conjugated oligomers with all-C backbones, feature very high fluorescence intensities.

IT 554459-63-19 554459-64-2P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (electronic absorption and emission, UV/VIS spectra; poly(triacetylene)-derived oligomers are prepared by Sonogashira and Cadiot-Chodkiewicz-type Pd-catalyzed cross-coupling reactions)

RN 554459-63-1 CAPLUS

CN 4,9-Dioxa-3,10-disiladodec-6-ene, 6-[[4-[(3E)-6-[4-[(3E)-3,4-bis[][(1,1dimethylethyl)dimethylsilyl]oxy]methyl]-6-(4-iodophenyl)-3-hexene-1,5diynyl]phenyl]-3,4-bis[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]-3hexene-1,5-diynyl]phenyl]ethynyl]-2,2,3,3,10,10,11,11-octamethyl-7-[(trimethylsilyl)ethynyl]-, (6E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-B

RN 554459-64-2 CAPLUS

CN 4,9-Dioxa-3,10-disiladodec-6-ene, 6-[[4-[(3E)-6-[4-[(3E)-3,4-bis[[[(1,1dimethylethyl)dimethylsilyl]oxy]methyl]-6-(4-iodophenyl)-3-hexene-1,5diynyl]phenyl]-3,4-bis[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]-3hexene-1,5-diynyl]phenyl]ethynyl]-7-[(4-[(3E)-3,4-bis[[[(1,1dimethylethyl)dimethylsilyl]oxy]methyl]-6-(trimethylsilyl)-3-hexene-1,5diynyl]phenyl]ethynyl]-2,2,3,3,10,10,11,11-octamethyl-, (6E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A

PAGE 1-B

IT 554459-70-300, Merrifield resin-supported

554459-73-3DP, Merrifield resin-supported

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and Sonogashira and Cadiot-Chookiewicz-type Pd-catalyzed cross-coupling reactions of supported poly(triacetylene)-derived oligomers)

- RN 554459-72-2 CAPLUS
- CN Ethanol, 2-[3-[4-[(3E)-6-[4-[(3E)-6-[4-[(3E)-3,4-bis[[[(1,1-

dimethylethyl)dimethylsilyl]oxy]methyl)-6-(trimethylsilyl)-3-hexene-1,5diyn-1-yl)phenyl]-3,4-bis([[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]-3hexene-1,5-diyn-1-yl]phenyl]-3,4-bis[[[(1,1-

dimethylethyl)dimethylsilyl]oxy]methyl]-3-hexene-1,5-diyn-1-yl]phenyl]-1ethyl-2-triazen-1-yl]- (CA INDEX NAME)

Double bond geometry as described by $\ensuremath{\mathbb{E}}$ or $\ensuremath{\mathbb{Z}}_*$

PAGE 1-B

RN 554459-73-3 CAPLUS

CN Ethanol, 2-[3-[4-[(3E)-6-[4-[(3E)-6-[4-[(3E)-6-[4-[(3E)-3,4-bis[[[(1,1-4-1])]]]]])]dimethylethyl)dimethylsilyl]oxy]methyl]-6-(trimethylsilyl)-3-hexene-1,5diyn-1-yl]phenyl]-3,4-bis[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]-3hexene-1,5-diyn-1-yl]phenyl]-3,4-bis[[[(1,1dimethylethyl)dimethylsilyl]oxy]methyl]-3-hexene-1,5-diyn-1-yl]phenyl]-3,4bis[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]-3-hexene-1,5-diyn-1-

Double bond geometry as described by E or Z.

yl]phenyl]-1-ethyl-2-triazen-1-yl]- (CA INDEX NAME)

PAGE 1-C

OS.CITING REF COUNT:

THERE ARE 18 CAPLUS RECORDS THAT CITE THIS RECORD (18 CITINGS)

REFERENCE COUNT:

THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 17 OF 22 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2001:714296 CAPLUS Full-text DOCUMENT NUMBER: 136:69640

TITLE: Synthesis and spectroscopic studies of expanded planar

dehydrotribenzo[n]annulenes containing one or two

isolated alkene units

AUTHOR(S): Wan, W. Brad; Chiechi, Ryan C.; Weakley, Timothy J.

R.; Haley, Michael M.

Department of Chemistry and the Materials Science CORPORATE SOURCE: Institute, University of Oregon, Eugene, OR,

97403-1253. USA

SOURCE: European Journal of Organic Chemistry (2001), (18),

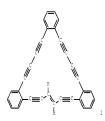
3485-3490

CODEN: EJOCFK; ISSN: 1434-193X

PUBLISHER: Wiley-VCH Verlag GmbH

DOCUMENT TYPE: Journal LANGUAGE: English

CASREACT 136:69640 OTHER SOURCE(S):



- AB Dehydrobenzoannulene derivs. containing isolated alkene linkages, e.g., I, were synthesized by combining an in situ Pd/Cu-mediated cross-coupling with an intramol. cyclization strategy. 1H NMR studies of these macrocycles and comparison with related systems verify that highly alkynylated dehydrobenzoannulenes possess weak induced ring currents, indicative of aromatic (4n+2 π systems) and antiarom. (4n π systems) behavior, in spite of their large size and extensive benzannulation.
- IT 383494-38-49

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

- (preparation and spectroscopic studies of expanded planar dehydrotribenzo[n]annulenes containing one or two isolated alkene units)
- RN 383404-38-4 CAPLUS
- CN Silane, [1,2-phenylenebis[(3E)-3-hexene-1,5-diyne-6,1-diyl-2,1-phenylene-2,1-ethynediyl]]bis[tris(1-methylethyl)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A

PAGE 1-B

OS.CITING REF COUNT: THERE ARE 10 CAPLUS RECORDS THAT CITE THIS

RECORD (10 CITINGS)

REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 18 OF 22 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER:

2001:519766 CAPLUS Full-text DOCUMENT NUMBER: 135:243732

TITLE: Novel fluorophores: efficient synthesis and

photophysical study

AUTHOR(S):

Hwang, Gil Tae; Son, Hyung Su; Ku, Ja Kang; Kim,

Byeang Hyean

CORPORATE SOURCE: Center for Integrated Molecular Systems Department of

Chemistry Division of Molecular Life Science, Pohang University of Science and Technology, Pohang, 790-784,

S. Korea

SOURCE: Organic Letters (2001), 3(16), 2469-2471

CODEN: ORLEF7; ISSN: 1523-7060 American Chemical Society

PUBLISHER: DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 135:243732

AB We have synthesized novel tetraacetylenic fluorophores by using Sonogashira reactions of 1,4-bis(dibromovinyl)benzene and 2,5-bis(dibromovinyl)thicphene with various aromatic bromides. The emission maxima of these fluorophores vary from the indigo blue to the reddish-orange region, depending on the structures of the aromatic nuclei and peripheral moieties.

360549-69-9P 360540-00-2P 360549-9J-3P

360549-92-40 360549-93-50 360549-94-60

360549-35-7P 360649-96-8P 360649-97-9P

360549-98-0P

RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

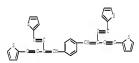
(fluorescent dye; preparation and spectra of tetraacetylenic fluorophores)

RN 360549-89-9 CAPLUS

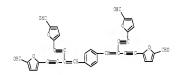
CN Benzene, 1,4-bis[4-phenyl-2-(2-phenylethynyl)-1-buten-3-yn-1-yl]- (CA

INDEX NAME)

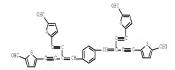
- RN 360549-90-2 CAPLUS
- CN Thiophene, 2,2'-[1,4-phenylenebis[3-(2-thienylethynyl)-3-buten-1-yne-4,1diyl]]bis- (9CI) (CA INDEX NAME)



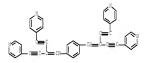
- RN 360549-91-3 CAPLUS
- CN 2-Furancarboxaldehyde, 5,5'-[1,4-phenylenebis[3-[(5-formyl-2furanyl)ethynyl]-3-buten-1-yne-4,1-diyl]]bis- (9CI) (CA INDEX NAME)



- RN 360549-92-4 CAPLUS
- CN 2-Thiophenecarboxaldehyde, 5,5'-[1,4-phenylenebis[3-[(5-formyl-2thienyl)ethynyl]-3-buten-1-yne-4,1-diyl]]bis- (9CI) (CA INDEX MAME)



- RN 360549-93-5 CAPLUS
- CN Pyridine, 4,4'-[1,4-phenylenebis[3-(4-pyridinylethynyl)-3-buten-1-yne-4,1-diyl]]bis- (9CI) (CA INDEX NAME)



- RN 360549-94-6 CAPLUS
- CN Thiophene, 2,5-bis[4-phenyl-2-(2-phenylethynyl)-1-buten-3-yn-1-yl]- (CA INDEX NAME)

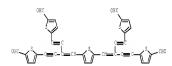
- RN 360549-95-7 CAPLUS
- CN Thiophene, 2,5-bis[4-(2-thienyl)-2-[2-(2-thienyl)ethynyl]-1-buten-3-yn-1-yl]- (CA INDEX NAME)



- RN 360549-96-8 CAPLUS
- CN 2-Furancarboxaldehyde, 5,5'-[2,5-thiophenediylbis[3-[(5-formyl-2-furanyl)ethynyl]-3-buten-1-yne-4,1-diyl]]bis-(9CI) (CA INDEX NAME)



- RN 360549-97-9 CAPLUS
- CN 2-Thiophenecarboxaldehyde, 5,5'-[2,5-thiophenediylbis[3-[(5-formyl-2-thienyl)ethynyl]-3-buten-1-yne-4,1-diyl]]bis- (9CI) (CA INDEX NAME)



- RN 360549-98-0 CAPLUS
- CN Pyridine, 4,4'-[2,5-thiophenediylbis[3-(4-pyridinylethynyl)-3-buten-1-yne-4,1-diyl]]bis- (9CI) (CA INDEX NAME)



OS.CITING REF COUNT: 26 THERE ARE 26 CAPLUS RECORDS THAT CITE THIS

RECORD (26 CITINGS)
REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS

RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 19 OF 22 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1996:29553 CAPLUS Full-text

DOCUMENT NUMBER: 124:260436
ORIGINAL REFERENCE NO.: 124:48247a,48250a

TITLE: Synthesis and reactions of new ethynyl-substituted

1,6-methano[10]annulenes

AUTHOR(S): Bryant-Freidrich, Amanda; Neidlein, Richard CORPORATE SOURCE: Pharm.-Chem. Inst., Univ. Heidelberg, Heidelberg,

D-69120, Germany

SOURCE: Synthesis (1995), (12), 1506-10

CODEN: SYNTBF; ISSN: 0039-7881

PUBLISHER: Thieme DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 124:260436

GT



AB Stereospecific Pd (PPh) 4 catalyzed coupling of an acetylene to geminal diornom-substituted alkenes yielded enymes, which upon dehydrohalogenation formed butadiynyl substituted 1,6-methano [10] annulenes I [R = (C.t.ploond.(2)23) R1 = R2 = H, R3 = Ph, CMe3) R1 = H, R = R2 = (C.t.ploond.(2)EH, R = R1 = (C.t.ploond.(2)EH, R2 = R1 = (C.t.ploond.(2)EH, R2 = R1)

IT 175439-03-3P 175430-11-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

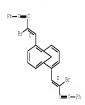
(preparation and reactions of ethynyl-substituted methanoannulenes)

RN 175430-09-8 CAPLUS

CN Bicyclo[4.4.1]undeca-1,3,5,7,9-pentaene,

2,7-bis(2-bromo-4-phenyl-1-buten-3-ynyl)-, (Z,Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 175430-11-2 CAPLUS

CN Bicyclo[4.4.1]undeca-1,3,5,7,9-pentaene, 2,10-bis(2-bromo-4-phenyl-1-buten-3-ynyl)-, (Z,Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L10 ANSWER 20 OF 22 CAPLUS COPYRIGHT 2009 ACS on SIN ACCESSION NUMBER: 1994:192448 CAPLUS Full-text DOCUMENT NUMBER: 120:192448

ORIGINAL REFERENCE NO.: 120:34087a,34090a

TITLE: Synthesis of a series of conjugated enyne polythiophenes

Kane, James J.; Gao, Feng; Reinhardt, Bruce A.; Evers,

Robert C.
CORPORATE SOURCE: Chem. Dep., Wright State Univ., Dayton, OH,

45435-0001, USA

SOURCE: Polymer Preprints (American Chemical Society, Division

of Polymer Chemistry) (1992), 33(1), 1064-5

CODEN: ACPPAY; ISSN: 0032-3934

DOCUMENT TYPE: Journal LANGUAGE: English

AB The title polymers were prepared via polymerization of 3,4-didecyloxy-2,5-bis-(β-bromoethenyl)thiophene and aromatic diethynyl compds. Thermal and viscosity of the resulting thiophene-containing polyacetylenes are discussed.

IT 183866-90-39
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(Reactant or reagent)
(preparation and polymerization of, with aromatic diethynyl compds.)

RN 153846-90-3 CAPLUS

AUTHOR(S):

CN Thiophene, 3,4-bis(decyloxy)-2,5-bis(4-phenyl-1-buten-3-ynyl)-, (E,E)-(9CI) (CA INDEX NAME)

Double bond geometry as shown.

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD

(1 CITINGS)

L10 ANSWER 21 OF 22 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1984:23114 CAPLUS Full-text

DOCUMENT NUMBER: 100:23114
ORIGINAL REFERENCE NO.: 100:3653a,3656a

TITLE: Cis-Enyme aromatic and aromatic heterocyclic polymers

INVENTOR(S): Reinhart, Bruce

PATENT ASSIGNEE(S): United States Dept. of the Air Force, USA SOURCE: U. S. Pat. Appl., 4 pp. Avail. NTIS Order No.

PAT-APPL-6-399 661. CODEN: XAXXAV

DOCUMENT TYPE: Patent LANCHACE. English

FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE | | |
|---------------------|------|----------|-----------------|----------|--|--|
| | | | | | | |
| US 399661 | A0 | 19830304 | US 1982-399661 | 19820719 | | |
| US 4417039 | A | 19831122 | | | | |
| ORITY APPLN. INFO.: | | | US 1982-399661 | 19820719 | | |

PRIORITY APPLN. INFO.:

AB Aromatic and aromatic heterocyclic enyne polymers having relatively low glass temps. for fabrication are prepared by treating 1,4-bis(cis- β -

bromovinyl)benzene (I) [88248-70-8] with a diacetylenic compound The polymers exhibit high glass temps. and low solvent susceptibilities after heat treatment. Thus, a suspension of 40 g p-phenylenediacrylic acid [16323-43-6] in 300 g Br was stirred for 3 h to give β, β' -p-phenylenebis(α, β dibromopropionic acid) (II) [88248-71-9]. A mixture of 21.5 g II and 20.0 g

NaHCO3 in 500 mL acetone was refluxed for 72 h to give I. A mixture of 0.5 g I and 0.7658 g 4,4'-bis(3-ethynylphenoxy)diphenyl sulfone [63770-82-1] was dissolved in a solution of 3 mL Et3N and 3 mL N,N-dimethylacetamide (III). A mixture of 0.025 g CuI and 0.05 g (Ph3P)2PdC12 was added. The mixture was stirred at room temperature for 70 h. Addnl. 10 mL III was added to give a polymer having glass temperature 143°. The polymer [88249-72-3] treated at 250° for 6 h had glass temperature >375° and was insol. in solvents.

- IT 36249-79-1P 88249-71-0P 88249-72-39 RL: IMF (Industrial manufacture); PREP (Preparation) (manufacture of, with low glass temperature)
- RN 88249-70-1 CAPLUS
- Poly(oxy-1, 4-phenylenesulfonyl-1, 4-phenyleneoxy-1, 4-phenylene-3-buten-1yne-1, 4-diyl-1, 4-phenylene-1-buten-3-yne-1, 4-diyl-1, 4-phenylene), (Z, Z)-(9CI) (CA INDEX NAME)

RN 88249-71-2 CAPLUS

CN Poly(oxy-1, 4-phenylenecarbonyl-1, 4-phenyleneoxy-1, 3-phenylene-3-buten-1yne-1, 4-diyl-1, 4-phenylene-1-buten-3-yne-1, 4-diyl-1, 3-phenylene), (Z,Z)-(9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

- RN 88249-72-3 CAPLUS
- CN Poly(oxy-1,4-phenylenesulfonyl-1,4-phenyleneoxy-1,3-phenylene-3-buten-1yne-1,4-diyl-1,4-phenylene-1-buten-3-yne-1,4-diyl-1,3-phenylene), (Z,Z)-(9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD OS.CITING BEE COUNT: (4 CITINGS)

110 ANSWER 22 OF 22 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1981:175327 CAPLUS Full-text DOCUMENT NUMBER: 94:175327
ORIGINAL REFERENCE NO.: 94:28659a,28662a

TILE: Reactions with phosphinealkylenes. XXXIX. New

methods for the preparation of 1-bromoacetylenes and

aromatic and conjugated enymes

AUTHOR(S): Bestmann, Hans Juergen; Frey, Herbert

CORPORATE SOURCE: Inst. Org. Chem., Univ. Erlangen-Nuernberg, Erlangen,

D-8520, Fed. Rep. Ger.

SOURCE: Liebigs Annalen der Chemie (1980), (12), 2061-71

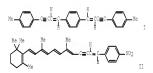
CODEN: LACHDL; ISSN: 0170-2041

DOCUMENT TYPE: Journal

LANGUAGE: German

OTHER SOURCE(S): CASREACT 94:175327

GI

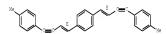


- AB Some of RCH:CBr2 (R = optionally substituted Ph, naphthyl, 9-anthryl, 2-thienyl, alkyl, cycloalkyl, McGR:CGM, McGR:CGR:CGM, McGR:CGR:CGM, McGR:CGR:CGM, McGR:CGR:CGM, Speared in 23-85% yields from RCHO, PPh3 and CBr4, were dehydrobromicated with (PhCH2)Me3H-OH-to give 35-80% RC:tplbond.CBr (R = optionally substituted Ph, raphthyl, 9-anthryl, alkyl, cycloalkyl), which were treated with Ph3PMeBr = nd RCHO [R1 = 4-02NCSH4, 9-anthryl, 3,4-C12CSH3, 3,4,5-(Me0)3CSH2, piperonyl, nicotinyl, 2-furyl, PCHS:CBl to give 20-70% RC:tplbond.CCH:CHR1. Addnl. obtained were 28% I and 35% II.
- IT 77295-85-3P

RL: SPN (Synthetic preparation); PREP (Preparation)

- (preparation of)
- RN 77295-85-3 CAPLUS
- CN Benzene, 1,4-bis[4-(4-methylphenyl)-1-buten-3-ynyl]-, (E,E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



OS.CITING REF COUNT: 30 THERE ARE 30 CAPLUS RECORDS THAT CITE THIS RECORD (30 CITINGS)

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chain noises:
4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 26 27 28 29 30 31 32 23
chair bonds:
4-5 5-6 6-7 7-8 8-9 9-10 10-11 11-12 12-13 12-26 13-14 14-15 15-16 16-17
17-18 18-39 19-20 26-27 27-28 28-29 29-30 30-31 31-32 32-33
exact/norm bonds:
4-5 5-6 11-12 12-13 12-26 18-19 19-20 31-32 32-33
exact bonds:
6-7 7-8 8-9 9-10 10-11 13-14 14-15 15-16 16-17 17-18 26-27 27-28 28-29 29-30 30-31 31-32 32-33

Gl:Cb,Cv,Hy

G2:C,H,O,N,C1,Br,F,I

G3:C, H, Si, Cb, Cy, Hy

Match level :

4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS 10:CLASS 11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS 18:CLASS 19:CLASS 17:CLASS 17:CLASS

26:CLASS 27:CLASS

28:CLASS 29:CLASS 30:CLASS 31:CLASS 32:CLASS 33:CLASS

111 STRUCTURE UPLOADED

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FULL SEARCH INITIATED 13:30:22 FILE 'REGISTRY'

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FULL SCREEN SEARCH COMPLETED - 11407 TO ITERATE

100.0% PROCESSED 11407 ITERATIONS

2 ANSWERS

SEARCH TIME: 00.00.34

L12 2 SEA SSS FUL L11

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=> s 112 L13 2 L1

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YOU HAVE REQUESTED DATA FROM 2 ANSWERS - CONTINUE? Y/(N):v

L13 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2005:1004691 CAPLUS Full-text

DOCUMENT NUMBER: 143:306181

TITLE: Process for preparation of π-conjugated aromatic ring-containing acetylene derivatives as organic

electroluminescent devices

INVENTOR(S): Sato, Fumie; Takayama, Yuuki
PATENT ASSIGNEE(S): Missan Chemical Industries, Ltd., Japan

SOURCE: PCT Int. Appl., 82 pp.

CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| | PATENT NO. | | | | | D | DATE | | APPLICATION NO. | | | | | | | | | | |
|------|------------|----------------|------|-----|-------------|-----|-------------------|------|-----------------|------------------------|-----|----------------------------|-------------------|---------------|----------------------------|----------------------------|-----|----|--|
| | | | | | A1 20050915 | | | | | | | | | 20050308 | | | | | |
| | W: | ΑE, | AG, | AL, | AM, | AT, | ΑU, | AZ, | BA, | ВВ, | BG, | BR, | BW, | ΒY, | BZ, | CA, | CH, | | |
| | | CN, | 00, | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EC, | $\mathbb{E}\mathbb{E}_{I}$ | EG, | ES, | FI_{t} | GB, | GD, | | |
| | | GΕ, | GH, | GM, | HR, | HU, | ID, | IL, | IN, | IS, | JP, | KΕ, | KG, | K₽, | KR_{r} | KZ_{r} | LC, | | |
| | | lK, | LR, | LS, | LT, | LU, | LV, | MA, | MD, | MG, | MK, | MN_{r} | \mathbb{MV}_{r} | MX, | \mathbb{MZ}_{r} | NA, | NI, | | |
| | | NO, | NZ, | OM, | PG, | PH, | \mathtt{PL}_{t} | PT, | RO, | \mathtt{RU}_{\prime} | SC, | SD, | SE, | SG, | SK, | SL, | SM, | | |
| | | SY, | IJ, | TM, | IN, | TR, | ΠŢ, | TZ, | UA, | UG, | US, | UZ, | VC, | $\mathbb{W},$ | ΥU, | ZA_r | ZM, | ZW | |
| | RW: | B₩, | GH, | GM, | ΚE, | LS, | \mathbb{MW}_{r} | MZ, | NA, | SD, | SL, | SZ, | 72, | UG, | ZM_r | ZW, | AM, | | |
| | | AZ, | ΒY, | ΚG, | ΚZ, | MD, | RU, | IJ, | TM, | ΑI, | BΞ, | BG, | CH, | CY, | $\mathbb{C}\mathbb{Z}_{r}$ | ${\tt DE_r}$ | DK, | | |
| | | EE, | ES, | FI, | FR, | GB, | GR, | ΗU, | ΙE, | IS, | IT, | LT, | LU, | MC, | NL_r | $\mathbb{PL}_{\mathbf{r}}$ | PT, | | |
| | | RO, | SE, | SI, | SK, | TR, | BF, | ΒJ, | CF, | CG, | CI, | ${\rm CM}_{r}$ | GA, | GN, | GQ, | GW, | ML, | | |
| | | $\mathtt{MR,}$ | ΝE, | SN, | TD, | ΤG | | | | | | | | | | | | | |
| | US 2007 | 0176 | 164 | | A1 | | 2007 | 0802 | US 2007-591950 | | | | | 20070307 | | | | | |
| PRIC | RITY APP | LN. | INFO | .: | | | | | JP 2004-65446 | | | | | | A 20040309 | | | | |
| | | | | | | | WD 2005-JP3950 | | | | | W 20050308 | | | | | | | |

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT OTHER SOURCE(S): MARPAT 143:306181

GI GI

AB This invention pertains to a method for producing π-conjugated aromatic ringcontaining acetylene derivs, via coupling reaction in the presence of palladium and Cu(I) catalysts. For example, the compound I was prepared in a multi-step synthesis in good yield. The title compds are useful as electroluminescent devices.

IT 864684-30-0P

RL: DEV (Device component use); INF (Industrial manufacture); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(preparation of $\pi\text{-conjugated}$ aromatic ring-containing acetylene derivs. as organic

electroluminescent devices)

RN 864684-30-0 CAPLUS

CN Benzene, 1-[(3E)-3,4-dipropyl-6-[4-[2-[tris(1-

methylethyl)silyllethynyllphenyl]-3-hexena-1,5-diyn-1-yl]-3-[(3E)-3-ethyl-3-propyl-4-[2-[4-[2-[tris[1-methylethyl]silyl]ethynyl]phenyl]ethynyl]-3pentan-1-ym-1-yl]-5-[(3E)-3-propyl-4-[2-[4-[2-[tris[1-methylethyl]silyl]ethynyl]phenyl]ethynyl]-3-hepten-1-yn-1-yl]- (CA INCEX NAME)

Double bond geometry as shown.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

113 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2009 ACS On STN
ACCESSION NUMBER: 2003:424686 CAPLUS Full-text

DOCUMENT NUMBER: 139:150012

TITLE: Synthesis of Highly Fluorescent Y-Enyne Dendrimers

with Four and Six Arms

AUTHOR(S): Kaafarani, Bilal R.; Wex, Brigitte; Wang, Fei; Catanescu, Otilia; Chien, L. C.; Neckers, Douglas C.

CORPORATE SOURCE: Center for Photochemical Sciences, Bowling Green State

University, Bowling Green, OH, 43403, USA

SOURCE: Journal of Organic Chemistry (2003), 68(13), 5377-5380

CODEN: JOCEAH; ISSN: 0022-3263

PUBLISHER: American Chemical Society

DCCUMENT TYPE: Journal LANGUAGE: English

AB A first generation of dendrimeric Y-enymes with extended flexible chains was synthesized using Sonogashira coupling. Dendrimers 9 and 10 are highly fluorescent in the solid state and in solution

IT 588670-03-19

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(synthesis of highly fluorescent Y-enyme dendrimers with four and six arms)

RN 569670-23-1 CAPLUS

PAGE 1-A

We-(CH2)11-0

CH-CH2)11-0

CH-CH2)

PAGE 1-B

— (CH2)11—Me

 \Diamond

Me-(CH2)11-

OS.CITING REF COUNT:

16 THERE ARE 16 CAPLUS RECORDS THAT CITE THIS

RECORD (16 CITINGS)

41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

PAGE 2-A

=>

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=> file registry

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water to

chain nodes: 4 5 6 7 8 9 10 11 chain bonds: 4-5 5-6 6-7 6-10 7-8 7-11 8-9 exact/norm bonds: 6-10 7-11 exact bonds: 4-5 5-6 6-7 7-8 8-9

Gl:Cb,Cy,Hy

G2:C,H,O,N,C1,Br,F,I

G3:C, H, Si, Cb, Cy, Hy

G4:H.Ak

Match level :

4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS 10:CLASS 11:CLASS

L1 STRUCTURE UPLOADED

=> s 11 sss full

FULL SEARCH INITIATED 15:54:41 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 7813 TO ITERATE

100.0% PROCESSED 7813 ITERATIONS 3088 ANSWERS

SEARCH TIME: 00.00.01

3088 SEA SSS FUL L1

=> file caplus

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 12

814 L2

=> 13 and (electroluminescence or electroluminescent or luminescent or (light emitting) or OLED)

26473 ELECTROLUMINESCENCE

30 ELECTROLUMINESCENCES

26478 ELECTROLIMINESCENCE

(ELECTROLUMINESCENCE OR ELECTROLUMINESCENCES) 5 ELECTROLIMINESCENSE

26479 ELECTROLUMINESCENCE

(ELECTROLUMINESCENCE OR ELECTROLUMINESCENSE)

90044 ELECTROLUMINESCENT

8 ELECTROLUMINESCENTS 90047 ELECTROLUMINESCENT

(ELECTROLUMINESCENT OR ELECTROLUMINESCENTS)

65004 LUMINESCENT 10 LUMINESCENTS

65010 LUMINESCENT

(LUMINESCENT OR LUMINESCENTS)

1334311 LIGHT

12618 LIGHTS 1338549 LIGHT

(LIGHT OR LIGHTS)

140113 EMITTING

219 EMITTINGS

140157 EMITTING

(EMITTING OR EMITTINGS)

76113 LIGHT EMITTING

(LIGHT (W) EMITTING)

7493 OLED 3722 OLEDS

9385 OLED

(OLED OR OLEDS)

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YOU HAVE REQUESTED DATA FROM 3 ANSWERS - CONTINUE? Y/(N):v

14 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:837081 CAPLUS Full-text

DOCUMENT NUMBER: 147:10411

TITLE: Theoretical design of Tight-emitting

polymers - substitution effects of excited state

ordering of polydiacetylene and polyacetylene

AUTHOR(S): Chen, Liping; Hou, Xinjuan; Zhu, Lingyun; Yin, Shiwei;

Shuai, Z.

CORPORATE SOURCE:

Key Laboratory of Organic Solids, Beijing National Laboratory for Molecular Sciences, Institute of Chemistry, Chinese Academy of Sciences, Beijing,

100080, Peop. Rep. China

Journal of Theoretical & Computational Chemistry SOURCE: (2006), 5(Spec, Issue), 391-400

CODEN: JTCCAC; ISSN: 0219-6336

PUBLISHER: World Scientific Publishing Co. Pte. Ltd.

DOCUMENT TYPE: Journal

LANGUAGE . English AB The excited states structure, essential in determining the light- emitting properties, in a correlated electron system behaves differently from the one-

electron system. Previous investigations show that upon proper chemical substitution, the non-emissive polyacetylene (PA) can be designed to be strongly light-exitting materials. On the basis of the correlated quantum chemical calcos. within the INDO/EOM-CCSD approach, we systematically studied both the pristine and substituted polydiacetylene (PDA) about the low-lying excited states orderings. PDA possesses high mobility, but it is non-emissive.

We predict that it is impossible to cause PDA to be light-emitting. From these numerical results, we propose a simple and practical rule to design conjugated light-maitting polymers, which require only a MO calcn. instead of

sophisticated correlated calcns. This rule is derived from phys. pictures of correlated electron model, and is found to be in agreement with the existing expts. for various substituted PA and poly(p-phenylenebutadiynylene) (PPPB).

IT 32803-85-3, 4-Octene-2,6-diyne 33/386-11-3,

4,8-Dodecadiene-2,6,10-trivne 337386-12-4,

4,8,12-Hexadecatriene-2,6,10,14-tetrayne 937386-13-8

937386-20-4 337386-25-1 937386-19-1 937386-20-4 337386-21-5 917386-22-6

337386-23-7 937386-24-6 RL: PRP (Properties)

(theor, design of light-emitting polymers -

substitution effects of excited state ordering of polydiacetylene and polyacetylene)

RN 32803-85-3 CAPLUS

CN 4-Octene-2, 6-diyne (CA INDEX NAME)

Me-C-C-C-C-C-C-Me

RN 937386-11-3 CAPLUS

CN 4,8-Dodecadiene-2,6,10-triyne (CA INDEX NAME)

CN 2,6-Octadien-4-ynedicarboxaldehyde, 2,7-di-1-propyn-1-yl- (CA INDEX NAME)

Me-C-C-C-CH-CH-C-C-C-C-C-C-Ne

RN 937386-12-4 CAPLUS

CN 4,8,12-Hexadecatriene-2,6,10,14-tetrayne (CA INDEX NAME)

RN 937386-13-5 CAPLUS

CN 4-Octene-2,6-diyne, 4,5-dimethyl- (CA INDEX NAME)

RN 937386-14-6 CAPLUS

CN 4,8-Dodecadiene-2,6,10-triyne, 4,5,8,9-tetramethyl- (CA INDEX NAME)

RN 937386-15-7 CAPLUS

CN 4,8,12-Hexadecatriene-2,6,10,14-tetrayne, 4,5,8,9,12,13-hexamethyl-TNDRX NAME)

RN 937386-19-1 CAPLUS

CN 2-Butenedial, 2,3-di-1-propyn-1-yl- (CA INDEX NAME)

RN 937386-20-4 CAPLUS

RN 937386-21-5 CAPLUS

CN 4,8,12-Hexadecatriene-2,6,10,14-tetrayne-4,5,8,9,12,13-hexacarboxaldehyde (CA INDEX NAME)

RN 937386-22-6 CAPLUS

CN 2-Butenedinitrile, 2,3-di-1-propyn-1-yl- (CA INDEX NAME)

RN 937386-23-7 CAPLUS

CN 2,6-Octadien-4-ynetetracarbonitrile, 2,7-di-1-propyn-1-yl- (CA INDEX NAME)

RN 937386-24-8 CAPLUS

CN 4,8,12-Hexadecatriene-2,6,10,14-tetrayne-4,5,8,9,12,13-hexacarbonitrile

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD
(1 CITINGS)

REFERENCE COUNT:

42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2005:1004691 CAPLUS Full-text

DOCUMENT NUMBER: 143:306181

TITLE: Process for preparation of \(\pi \)-conjugated aromatic ring-containing acetylene derivatives as organic

electroluminercent devices

INVENTOR(S): Sato, Fumie; Takayama, Yuuki
PATEMT ASSIGNEE(S): Nissan Chemical Industries, Ltd., Japan

SOURCE: PCT Int. Appl., 82 pp.

CODEN: PIXXD2
DCCUMENT TYPE: Patent
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION:

| PA' | IENT | NO. | | | KIN | D | DATE | | | APPLICATION NO. | | | | | DATE | | | | |
|----------------|------------|-----|-----|-----|-----|----------|------|----------------|-----|-----------------|------|------|----------|----------|--------|-----|-------------------|---|--|
| WO. | 2005085176 | | | A1 | | 20050915 | | WO 2005-JP3950 | | | | | 20050308 | | | | | | |
| | W: | ΑE, | AG, | AL, | AM, | AT, | AU, | AZ, | BA, | BB, | BG, | BR, | BW, | BY, | BZ, | CA, | CH, | | |
| | | CN, | 00, | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EC, | EE, | EG, | ES, | FI, | GB, | GD, | | |
| | | GΕ, | GH, | GM, | HR, | HU, | ID, | IL, | IN, | IS, | JP, | ΚE, | KG, | K₽, | KR, | KΖ, | LC, | | |
| | | lK, | LR, | ls, | LT, | LU, | LV, | MA, | MD, | MG, | MK, | MN, | ΜW, | MX, | MZ, | NA, | NI, | | |
| | | NO, | NZ, | OM, | PG, | PH, | PL, | PT, | RO, | RU, | SC, | SD, | SE, | SG, | SK, | SL, | SM, | | |
| | | SY, | TJ, | IM, | IN, | TR, | II, | 72, | UA, | UG, | US, | UZ, | VC, | W, | YU, | ZA, | ZM, | Z | |
| | RW: | B₩, | GH, | GM, | ΚE, | LS, | MW, | ΜZ, | NA, | SD, | SL, | SZ, | TZ_{r} | UG, | ZM_r | ZW, | AM, | | |
| | | AZ, | ΒY, | KG, | ΚZ, | MD, | RU, | IJ, | TM, | AT, | BΕ, | BG, | CH, | CY, | CZ, | DE, | DK, | | |
| | | EE, | ES, | FI, | FR, | GB, | GR, | ΕU, | IE, | IS, | IT, | LT, | LU, | MC, | NL, | PL, | PT, | | |
| | | RO, | SE, | SI, | SK, | TR, | BF, | ΒJ, | CF, | CG, | CI, | CM, | GA, | GN, | GQ, | GW, | \mathtt{ML}_{I} | | |
| | | MR, | NE, | SN, | TD, | TG | | | | | | | | | | | | | |
| US 20070176164 | | | | | A1 | | 2007 | 0802 | | US 2 | 007- | 5919 | | 20070307 | | | | | |
| | | | | | | | | | | | | | | | | | | | |

PRIORITY APPLN. INFO.: JP 2004-65446 A 20040309 WO 2005-JP3950 W 20050308

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OTHER SOURCE(S): MARPAT 143:306181

GI

AB This invention pertains to a method for producing r-conjugated aromatic ringcontaining acetylene derivs. via coupling reaction in the presence of palladium and Ou(1) catalysts. For example, the compound I was prepared in a multi-step synthesis in good yield. The title compos. are useful as electroluminescent devices.

IT 740510-64-4P 740910-65-52 140810-61-72 740510-63-52 846830-61-72 846639-96-53 846639-96-53 846634-03-72 846634-03-72 846634-03-72 846634-03-72 846634-03-72 846634-03-72

RL: INF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; preparation of π -conjugated aromatic ring-containing

acetylene
derivs. as organic electroluminescent devices)

RN 740810-64-4 CAPLUS

CN 3-Butyn-2-ol, 4-[6-[(3E)-3-butyl-4-[2-[6-[2-[tris(1-methylethyl)silyl]ethynyl]-3-pyridinyl]ethynyl]-3-hepten-1-yn-1-yl]-3-pyridinyl]-2-methyl- (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-B



RN 740810-65-5 CAPLUS

CN 3-Butyn-2-ol, 4-[6-[(3E)-3-butyl-4-[2-[6-[(3E)-3-butyl-4-[2-[6-[(2E-tris(1-methylethyl)silyl]ethynyl]-3-pyridinyl]ethynyl]-3-hepten-1-yn-1-yl]-3-pyridinyl]ethynyl]-3-hepten-1-yn-1-yl]-3-pyridinyl]ethynyl]-3-hepten-1-yn-1-yl]-3-pyridinyl]-2-methyl- (CA INDEX NAME)

- RN 740810-67-7 CAPLUS
- CN 3-Butyn-2-ol, 2-methyl-4-[5-[(3E)-3-propyl-4-[(5-[[tris[1-methylethyl)silyl]ethynyl]-2-thienyl]ethynyl]-3-hepten-1-yn-1-yl]-2-thienyl]- (CA INDEX NAME)

PAGE 1-B

- RN 740810-68-8 CAPLUS
- CN 3-Butyn-2-ol, 2-methyl-4-[5-[(3E)-3-propyl-4-[[5-[(3E)-3-propyl-4-[[5-[[tris(1-methylethyl)silyl]ethynyl]-2-thienyl]ethynyl]-3-hepten-1-yn-1-yl]-2-thienyl]ethynyl]-3-hepten-1-yn-1-yl]-2-thienyl]- (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-B

- RN 864683-96-5 CAPLUS
- CN 3-Butyn-2-ol, 4-[5-[(3E)-5-ethyl-4-[2-(5-ethynyl-2-thienyl)ethynyl]-3propyl-3-penten-1-yn-1-yl]-2-thienyl]-2-methyl- (CA INDEX NAME)

Double bond geometry as shown.

- RN 864683-97-6 CAPLUS
- CNI 3-Butyn-2-01, 4-[5-[(3E)-4-[2-[5-[(3E)-4-[2-(5-ethynyl-2-thienyl)ethynyl]-3-propyl-3-hepten-1-yn-1-yl]-2-thienyl]-3-propyl-3-hepten-1-yn-1-yl]-2-thienyl]-2-methyl- (CA INCEX NAME)

Double bond geometry as shown.

PAGE 1-B

$$\text{Constant} = \text{Constant} =$$

- RN 864684-01-5 CAPLUS
- CN 3-Butyn-2-o1, 4-[6-[(3E)-3-buty1-4-[2-(6-ethyny1-3-pyridiny1)ethyny1]-3-hepten-1-yn-1-y1]-3-pyridiny1]-2-methyl- (CA INDEX NAME)

- RN 864684-02-6 CAPLUS
- CN 3-Butyn-2-ol, 4-[6-[(3E)-3-butyl-4-[2-[6-[(3E)-3-butyl-4-[2-(6-ethynyl-3-pyridinyl)ethynyl]-3-hepten-1-yn-1-yl]-3-pyridinyl]-2-methyl- (CA INDEX NAME)

PAGE 1-B

- RN 864684-04-8 CAPLUS
- CN Thiophene, 2-[(3E)-3,4-dipropyl-6-(trimethylsilyl)-3-hexene-1,5-diyn-1-yl]-5-[2-(tris(1-methylethyl)silyl]ethynyl]- (CA INDEX NAME)

Double bond geometry as shown.

$$\label{eq:heaver} \operatorname{He} 3 \text{Si} - C = C \\ \underset{n-Pr}{\overset{n-Pr}{=}} C = C \\ \underset{n-Pr}{\overset{s}{=}} C = C \\ \text{Si} \left(Pr - i \right) 3$$

- RN 864684-05-9 CAPLUS
- CN Thiophene, 2-[(3E)-4-ethynyl-3-propyl-3-hepten-1-yn-1-yl]-5-[2-[tris(1-methylethyl)silyl]ethynyl]- (CA INDEX NAME)

Double bond geometry as shown.

$$\label{eq:continuous} \text{HC} = \text{C} \underbrace{\text{F}}_{\text{C}} \text{C} = \text{C} - \text{Si}\left(\text{Pr} - \text{i}\right) \text{3}$$

RN 864684-07-1 CAPLUS

CN Thiophene, 2-[(3E)-5-ethyl-3-propyl-4-[2-(trimethylsilyl)ethynyl]-3-penten-1-yn-1-yl]- (CA INDEX NAME)

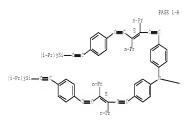
Double bond geometry as shown.

$$\sum_{n-Pr} \sum_{n-Pr} c = c - sime 3$$

- RN 864684-08-2 CAPLUS
- CN Thiophene, 2-[(3E)-4-ethynyl-3-propyl-3-hepten-1-yn-1-yl]- (CA INDEX NAME)

Double bond geometry as shown.

- RN 864684-31-1 CAPLUS
- CN Benzenamine, N-[4-[(3E)-3,4-dipropyl-6-[4-[2-[tris(1-methylethyl):sllyl]bethyyl]phenyl]-3-bexene-1,5-diyn-1-yl]phenyl]-4-[(3E)-3-propyl-4-[2-[4-[2-[tris(1-methylethyl]stlyl]othywl]]-3-heptan-1-yn-1-yl]-3-[4-[(3E)-3-propyl-4-[2-[4-[2-[tris(1-methylethyl]silyl]bethyyl]]-3-heptan-1-yn-1-yl]phenyl]- (CA THEEX TABLES)



PAGE 1-B PAGE 1-B

RN 864684-32-2 CAPLUS

CN Benzenamine, N-[4-[(3E)-5-ethyl-4-[2-(4-ethynylphenyl)ethynyl]-3-propyl-3-penten-1-yn-1-yl]phanyl]-4-[(3E)-4-[2-(4-ethynylphenyl)ethynyl]-3-propyl-3-hepten-1-yn-1-yl]-N-[4-[(3E)-4-[2-(4-ethynylphenyl)ethynyl]-3-propyl-3-hepten-1-yn-1-yl]phanyl]- (CA INDEX NAME)

Double bond geometry as shown.

II 760810-66-60 740610-69-50 044694-73-IP 64668-71-92 65668-71-92 65668-71-92 65668-71-92 65668-71-92 65668-71-92 65668-71-92 65668-71-92 65668-71-92 65668-71-92 65668-71-92 65668-71-92 65668-71-92 65668-71-92 65668-71-92 65688-71-92

R1: DBV (Device component use); IMF (Industrial manufacture); SPN (Synthetic preparation); IBM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(preparation of $\pi\mbox{-}\mbox{conjugated}$ aromatic ring-containing acetylene derivs, as organic

blectroluminescent devices)

RN 740810-66-6 CAPLUS

Double bond geometry as shown.

PAGE 1-A

PAGE 1-C



RN 740810-69-9 CAPLUS

CN 3-Butyn-2-01, 4-15-[38]-4-[2-[5-[38]-5-ethyl-4-[2-[5-[38]-5-ethyl-3-propyl-4-[2-[5-[2-[tris (1-methylethyl) sily]] ethynyl]-2-thienyl]ethynyl]-3-pethen-1-yn-1-yl]-2-thienyl]ethynyl]-3-propyl-3-pethen-1-yn-1-yl]-2-thienyl]ethynyl]-3-pothen-1-yn-1-yl]-2-thienyl]ethynyl]-3-pethen-1-yn-1-yl]-2-thienyl]-2-methyl- (CA INDEX MANG)

Double bond geometry as shown.

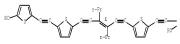
PAGE 1-C

__Ne

RN 864684-03-7 CAPLUS

CN 2-Thiophenecarbonitrile, 5-[2-[5-[(3E)-5-ethyl-4-[2-[5-(3-hydroxy-3-methyl-1-butyn-1-yl)-2-thienyl]ethynyl]-3-propyl-3-penten-1-yn-1-yl]-2thienyl]ethynyl]- (CA INDEX NAME)

Double bond geometry as shown.



PAGE 1-B



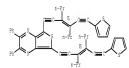
RN 864684-06-0 CAPLUS

CN 2,1,3-Benzothiadiazole, 4-[(3E)-3,4-dipropyl-6-[5-[2-[tris(1-methylethyl)silyl]ethynyl]-2-thianyl]-3-hexene-1,9-diyn-1-yl]-7-[(3E)-3-propyl-4-[2-[5-[2-[tris(1-methylethyl)silyl]ethynyl]-2-thianyl]ethynyl]-3-hepten-1-yn-1-yl]- (CA INDEX NAME)

Double bond geometry as shown.

RN 864684-09-3 CAPLUS

CN Thieno(3,4-b)pyrazine, 5-[(3E)-3,4-dipropyl-6-(2-thienyl)-3-hexene-1,5-diyn-1-yl]-2,3-diphenyl-7-[(3E)-3-propyl-4-[2-(2-thienyl)ethynyl]-3-hepten-1-yn-1-yl]- (CA INDEX NAME)



- RN 864684-21-9 CAPLUS
- CN Thiophene, 2-[(3E)-3,4-dipropyl-6-[4-[(3E)-3-propyl-4-[2-[5-[2-[tris(1-methylethyl)silyl]ethynyl]-2-thienyl]ethynyl]-3-hepten-1-yn-1-yl]phenyl]-3-hezene-1,5-diyn-1-yl]-5-[2-[tris(1-methylethyl)silyl]ethynyl]- (CA INDEX NAME)

- RN 864684-22-0 CAPLUS
- CN Benzene, 1-[(3E)-3,4-dipropyl-6-[4-[2-[tris(1methylethyl]sily]sthynyl]phenyl]-3-hexene-1,5-diyn-1-yl]-4-[(3E)-3-propyl4-[2-[4-[2-[tris(1-methylethyl)sily]]ethynyl]phenyl]ethynyl]-3-hepten-1-yn1-yl]- (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A

- RN 864684-23-1 CAPLUS
- CN Thiophene, 2-[13E]-5,4-dipropyl-5-[4-[2-[tris(1-methylethyl)silyl]ethywl]phenyl]-5-hexene-1,5-diyn-1-yl]-5-[13E]-3-propyl-4-[2-[4-[2-[tris(1-methylethyl]silyl]ethywl]]ethywl]-3-hepten-1-yn-1-yl]- (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A

PAGE 1-B

- RN 864684-24-2 CAPLUS
- CN Silane, [oxybis[4,1-phenylene](3E)-3,4-dipropyl-3-hexene-1,5-diyne-6,1-diyl]-4,1-phenylene-2,1-ethynediyl]]bis[tris(1-methylethyl)-(9CI) (CA INDEX NAME)

PAGE 1-B

RN 864684-25-3 CAPLUS

CN 2, 2'-Bithiophere, 5-[(38)-3,4-dipropyl-6-[4-[2-[tris]1-methylethylisily]] ethyryl]pheryl]-3-bexene-1,5-diyn-1-yl]-5'-[(38)-3-propyl-4-[2-[4-[2-[tris[1-methylethyl]silyl]ethynyl]phenyl]ethynyl]-3-beyten-1-yn-1-yl]- (C.R. NDEX NAME)

Double bond geometry as shown.

RN 864684-26-4 CAPLUS

CN Naphthalene, 2-[(3E)-3,4-dipropyl-6-[4-[2-[tris[1-methylethyl]silyl]ethyyl]phenyl]-3-hexene-1,5-diyn-1-yl]-6-[(3E)-3-propyl-4-[2-[4-[2-[tris[1-methylethyl]silyl]ethyyl]phenyl]ethyyl]-3-hepten-1-yn-1-yl]- (CA INDEX NAWS)

Double bond geometry as shown.

PAGE 1-B

RN 864684-27-5 CAPLUS

CN Anthracene, 9-[(3E)-3,4-dipropyl-6-[4-[2-[tris(1-methylethylisily]] ethynyl]phenyl]-3-bexene-1,6-diyn-1-yl]-10-[(3E)-3-propyl-4-[2-[4-[2-[tris(1-methylethyl]sily]] ethynyl]phenyl]ethynyl]-3-hepten-1-yn-1-yl]- (CA INDEX NAME)

Double bond geometry as shown.

RN 864684-28-6 CAPLUS

CN 2,1,3-Benzothiadiazole, 4-[(3E)-3,4-dipropyl-6-[4-[2-[tris[1methylethyl)silyl]ethyw].]phenyl]-3-hexene-1,5-diyn-1-yl]-7-[(3E)-3-propyl-4-[2-[4-[2-[tris[1-methylethyl]silyl]ethyw]]phenyl]ethymyl]-3-hepten-1-yn-1-yl]- (CA INDEX NAME)

Double bond geometry as shown.

RN 864684-29-7 CAPLUS

CN Pyridazine, 3-[(3E)-3,4-dipropyl-6-[4-[2-[tris]]-methylethylisilyl]ethyyl]phenyl]-3-hexene-1,5-diym-1-yl]-6-[(3E)-3-propyl-4-[2-[4-[2-[tris]]-methylethyl]silyl]ethyyl]phenyl]ethyyl]-3-hepten-1-yn-1-yl]- (OR INDEX NAME)

Double bond geometry as shown.

PAGE 1-B

RN 864684-30-0 CAPLUS

CN Benzene, 1-[(3E)-3,4-dipropyl-6-[4-[2-[tris(1methylethyl)sily]]bethynyl]phenyl]-3-hexene-1,3-diyn-1-yl]-3-[(3E)-5-ethyl3-propyl-4-[2-[4-[2-[tris(1methylethyl)sily]]bethynyl]-3penten-1-yn-1-yl]-5-[(3E)-3-propyl-4-[2-[4-[2-[tris(1methylethyl)sily]]bethynyl]phenyl]ethynyl]-3-hepten-1-yn-1-yl]- (CA INDEX
NNME)

Double bond geometry as shown.

PAGS 1-8

RN 864684-33-3 CAPLUS

CN Benzenamire, N-(4-[(3E)-5-ethyl-4-[2-[4-[2-(4-]2-(4-]2-(4-]2-(4-]2-(4-]2-(4-]2-(4-]2-(4-]2-(4-]2-(4-]2-(4-[2-(4-]2-(4-[2-(4-[2-(4-]2-(4-[2-(4-]2

Double bond geometry as shown.

PAGE 1-B

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS

L4 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2009 ACS on STN 2003:189466 CAPLUS Full-text ACCESSION NUMBER:

DOCUMENT NUMBER: 139:101213

TITLE: Luninescant properties of carbon-rich

starburst gold(I) acetylide complexes. Crystal structure of [TEE] [Au(PCv3)]4 ([TEE]H4 =

tetraethynylethene)

AUTHOR(S): Lu, Wei; Zhu, Nianyong; Che, Chi-Ming

CORPORATE SOURCE: Department of Chemistry and HKU-CAS Joint Laborotary on New Materials, The University of Hong Kong, Hong

Kong, Peop. Rep. China

SOURCE: Journal of Organometallic Chemistry (2003), 670(1-2), 11-16

CODEN: JORCAI; ISSN: 0022-328X

Elsevier Science B.V.

DOCUMENT TYPE: Journal LANCHAGE .

English CASREACT 139:101213 OTHER SOURCE(S):

AB Two carbon-rich starburst gold(I) acetylide complexes [TEE][Au(PCy3)]4 (3, [TEE]H4 = tetraethynylethene) and [TEB][Au(PCy3)]3 (6, [TEB]H3 = 1,3,5triethynylbenzene) were prepared and their UV-vis absorption, emission and excitation spectra have been recorded. In fluid CH2Cl2 solns., 3 exhibits prompt 1(mm*) fluorescence with AO-O and Amax at 413 and 428 nm, resp., while 6 displays $3\,(\pi\pi^{\star})$ phosphorescence with $\lambda 0$ -0 and λmax at 446 and 479 nm, resp.

The crystal structure of 3.CH2Cl2 has been determined IT \$58460-17-6P

PUBLISHER:

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (crystal structure; preparation and tominescent properties of carbon-rich starburst gold acetylide complexes and crystal structure of tetraethynylethene gold phosphine complex)

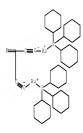
RN 558460-17-6 CAPLUS

CN Gold, $[\mu-[3,4-di(ethynyl-\kappa C2)-3-hexene-1,5-diynato(4-)-$ KC1,KC6]]tetrakis(tricyclohexylphosphine)tetra-, compd. with dichloromethane (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 558460-16-5 CMF C82 H132 Au4 P4 CCI CCS

PAGE 1-A



CM 2

CRN 75-09-2 CMF C H2 C12

C1-CH2-C1

IT 558460-16-50

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (mol. structure, luminescence; preparation and luminescent properties of carbon-rich starburst gold acetylide complexes and crystal structure of tetraethynylethene gold phosphine complex)

RN 558460-16-5 CAPLUS

CN Gold, [µ-[3,4-di(ethynyl-xC2)-3-hexene-1,5-diynato(4-)-KCl, KC6]]tetrakis(tricyclohexylphosphine)tetra- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-A

IT 55660-16-9

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation and lamanescent properties of carbon-rich starburst gold acetylide complexes and crystal structure of tetraethynylethene gold phosphine complex)

RN 55660-76-9 CAPLUS

CN Silane, 1,1'-[3,4-bis[2-(trimethylsilyl)ethynyl]-3-hexene-2,5-diyne-1,6divl]bis[1,1,1-trimethyl- (CA INDEX NAME)



OS.CITING REF COUNT: 30 THERE ARE 30 CAPLUS RECORDS THAT CITE THIS

RECORD (30 CITINGS)

REFERENCE COUNT: THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS 34

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> 13 and (electroluminescence or electroluminescent or luminescent or (light

emitting) or OLED or (non linear optics) or NLO)

26473 ELECTROLUMINESCENCE 30 ELECTROLUMINESCENCES

26478 ELECTROLUMINESCENCE

(ELECTROLUMINESCENCE OR ELECTROLUMINESCENCES)

5 ELECTROLIMINESCENSE

26479 ELECTROLUMINESCENCE

(ELECTROLUMINESCENCE OR ELECTROLUMINESCENSE)

90044 ELECTROLUMINESCENT

8 ELECTROLUMINESCENTS

90047 ELECTROLUMINESCENT (ELECTROLUMINESCENT OR ELECTROLUMINESCENTS)

65004 LUMINESCENT

10 LUMINESCENTS 65010 LUMINESCENT

(LUMINESCENT OR LUMINESCENTS)

1334311 LIGHT 12618 LIGHTS 1338549 LIGHT (LIGHT OR LIGHTS) 140113 EMITTING 219 EMITTINGS 140157 EMITTING (EMITTING OR EMITTINGS) 76113 LIGHT EMITTING (LIGHT(W)EMITTING) 7493 OLED 3722 OLEDS 9385 OLED (OLED OR OLEDS) 1110208 NON 38 NONS 1110237 NON (NON OR NONS) 710357 LINEAR 74 LINEARS 710397 LINEAR (LINEAR OR LINEARS) 53122 OPTICS

311 NON LINEAR OPTICS

(NON (W) LINEAR (W) OPTICS)

7807 NLO

19 NLOS

7820 NLO

(NILO OR NILOS) 6 L3 AND (ELECTROLUMINESCENCE OR ELECTROLUMINESCENT OR LUMINESCENT

OR (LIGHT EMITTING) OR OLED OR (NON LINEAR OPTICS) OR NLO)

=> d ibib abs hitstr 1-

AUTHOR(S):

CORPORATE SOURCE:

YOU HAVE REQUESTED DATA FROM 6 ANSWERS - CONTINUE? Y/(N):y

L5 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2006:837081 CAPLUS Full-text

DOCUMENT NUMBER: 147:10411

Theoretical design of light-emitting TITLE:

polymers - substitution effects of excited state

ordering of polydiacetylene and polyacetylene

Chen, Liping; Hou, Xinjuan; Zhu, Lingyun; Yin, Shiwei;

Shuai, Z. Key Laboratory of Organic Solids, Beijing National

laboratory for Molecular Sciences, Institute of

Chemistry, Chinese Academy of Sciences, Beijing,

100080, Peop. Rep. China

SOURCE: Journal of Theoretical & Computational Chemistry

(2006), 5(Spec. Issue), 391-400

CODEN: JTCCAC; ISSN: 0219-6336

PUBLISHER: World Scientific Publishing Co. Pte. Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The excited states structure, essential in determining the light- emitting properties, in a correlated electron system behaves differently from the oneelectron system. Previous investigations show that upon proper chemical substitution, the non-emissive polyacetylene (PA) can be designed to be strongly light-emitting materials. On the basis of the correlated quantum chemical calcns. within the IMDO/EOM-CCSD approach, we systematically studied both the pristine and substituted polydiacetylene (PDA) about the low-lying

excited states orderings. PDA possesses high mobility, but it is non-emissive. We predict that it is impossible to cause PDA to be light-enithing. From these numerical results, we propose a simple and practical rule to design conjugated light-emitting polymers, which require only a MO calcn. instead of sophisticated correlated calcns. This rule is derived from phys. pictures of correlated electron model, and is found to be in agreement with the existing expts. for various substituted PA and poly(p-phenylenebutadiynylene) (PPPB).

IT 32803-86-3, 4-Octene-2,6-diyne 937386-11-3,

4,8-Dodecadiene-2,6,10-triyne 937386-12-4,

4,8,12-Hexadecatriene-2,6,10,14-tetrayne 937356-13-5 337386-14-6 937386-15-7 927266-39-1

337386-20-4 937386-21-5 937386-22-6 937386-23-7 937386-24-4

RL: PRP (Properties)

(theor, design of light-emitting polymers -

substitution effects of excited state ordering of polydiacetylene and polyacetylene)

RN 32803-85-3 CAPLUS

CN 4-Octene-2,6-diyne (CA INDEX NAME)



- RN 937386-11-3 CAPLUS
- CN 4,8-Dodecadiene-2,6,10-triyne (CA INDEX NAME)



- RN 937386-12-4 CAPLUS
- CN 4,8,12-Hexadecatriene-2,6,10,14-tetrayne (CA INDEX NAME)

- RN 937386-13-5 CAPLUS
- CN 4-Octene-2,6-divne, 4,5-dimethyl- (CA INDEX NAME)



- RN 937386-14-6 CAPLUS
- CN 4,8-Dodecadiene-2,6,10-triyne, 4,5,8,9-tetramethyl- (CA INDEX NAME)

- RN 937386-15-7 CAPLUS
- CN 4,8,12-Hexadecatriene-2,6,10,14-tetrayne, 4,5,8,9,12,13-hexamethyl- (CA INDEX NAME)

- RN 937386-19-1 CAPLUS
- CN 2-Butenedial, 2,3-di-1-propyn-1-yl- (CA INDEX NAME)

- RN 937386-20-4 CAPLUS
- CN 2,6-Octadien-4-ynedicarboxaldehyde, 2,7-di-1-propyn-1-yl- (CA INDEX NAME)

- RN 937386-21-5 CAPLUS
- CN 4,8,12-Hexadecatriene-2,6,10,14-tetravne-4,5,8,9,12,13-hexacarboxaldehyde (CA INDEX NAME)

- RN 937386-22-6 CAPLUS
- CN 2-Butenedinitrile, 2,3-di-1-propyn-1-yl- (CA INDEX NAME)



RN 937386-23-7 CAPLUS

CN 2,6-Octadien-4-ynetetracarbonitrile, 2,7-di-1-propyn-1-yl- (CA INDEX NAME)

RN 937386-24-8 CAPLUS

CN 4,8,12-Hexadecatriene-2,6,10,14-tetrayne-4,5,8,9,12,13-hexacarbonitrile (CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD

(1 CITINGS)

REFERENCE COUNT: 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2009 ACS on SIN ACCESSION NUMBER: 2005:1004691 CAPLUS Full-text

DOCUMENT NUMBER: 143:306181

TITLE: Process for preparation of m-conjugated aromatic

ring-containing acetylene derivatives as organic

alactrolymines:ent devices

INVENTOR(S): Sato, Funie; Takayama, Yuuki

PATENT ASSIGNEE(S): Nissan Chemical Industries, Ltd., Japan

SOURCE: PCT Int. Appl., 82 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PA' | PATENT NO. | | | | | | KIND DATE | | | APPLICATION NO. | | | | | | DATE | | | |
|-----|---------------|-----|-----|--------------|-----|-----|-----------|------|-----|--------------------|-----|----------------------------|----------------------------|-----|----------------------------|----------|-----|----|--|
| | | | | | | - | | | | | | | | | | | | | |
| WO | WO 2005085176 | | | | A1 | | 2005 | 0915 | | WO 2005-JP3950 | | | | | | 20050308 | | | |
| | W: | AE, | AG, | AL, | AM, | AT, | AU, | AZ, | BA, | BB, | BG, | BR, | BW, | ΒY, | BZ_r | CA, | CH, | | |
| | | CN, | CO, | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EC, | $\mathbb{E}\mathbb{E}_{t}$ | EG, | ES, | FI_t | GB, | GD, | | |
| | | GΕ, | GH, | GM, | HR, | HU, | ID, | IL, | IN, | IS_{t} | JP, | ΚE, | KG, | KP, | $\mathtt{KR}_{\mathbf{r}}$ | KZ_{r} | LC, | | |
| | | lK, | LR, | ls, | LT, | LU, | LV, | MA, | MD, | MG, | MK, | MN_{r} | $\mathbb{M}\mathbb{W}_{r}$ | MX, | MZ_{r} | NA_t | NI, | | |
| | | NO, | NZ, | OM, | PG, | PH, | PL_{r} | PT, | RO, | ${\tt RU}_{\it t}$ | SC, | SD, | SE_{r} | SG, | SK, | SL, | SM, | | |
| | | SY, | TJ, | ${\rm TM}_r$ | IN, | TR, | 77, | TZ, | UA, | UG, | US, | UZ, | VC, | VN, | YU, | ZA_{r} | ZM, | ZW | |

RN: BN, GE, GM, KE, LS, MN, MZ, MA, SD, SL, SZ, TZ, UG, ZM, ZN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, ET, FR, GB, GR, EU, IE, IS, IT, LT, LU, MC, NL, EL, PT, RO, SE, SI, SK, TR, BE, BJ, CF, CG, CI, CM, GA, GN, GQ, GN, ML, MR, ME, SN, TD, TG

US 20070176164 A1 20070802 US 2007-591950 20070307
PRIORITY APPLM: INFO:: JP 2004-65446 A 20040309
W0 2005-JP3950 W 20050308

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT OTHER SOURCE(S): MARPAT 143:306181

СT

$$-\Pr - \underbrace{\frac{1}{9}i}_{p-1}^{p-1} \underbrace{0} = \underbrace{0}_{p-1}^{p-1} \underbrace{0} = \underbrace{0}_{p-1}^{p-1} \underbrace{0}_{p-1}^{$$

AB This invention pertains to a method for producing x-conjugated aromatic ringcontaining acetylens derivs. via coupling reaction in the presence of palladium and Ou[] ostalysts. For example, the compound I was prepared in a multi-step synthesis in good yield. The title computs are useful as electroluminescent devitors.

IT 740810-64-49 740310-65-50 740810-65-70 740810-67-70 868683-95-50 868683-97-66 869684-71-50 869684-72-50 86

RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; preparation of π-conjugated aromatic ring-containing vlene

derivs. as organic electrolaminescent devices)

RN 740810-64-4 CAPLUS

CN 3-Butyn-2-ol, 4-[6-[(3E)-3-butyl-4-[2-[6-[2-[tris(1-

methylethyl)silyl]ethynyl]-3-pyridinyl]ethynyl]-3-hepten-1-yn-1-yl]-3-pyridinyl]-2-methyl- (CA INDEX NAME)

Double bond geometry as shown.

PASS 1-A



- RN 740810-65-5 CAPLUS
- CN 3-Butyn-2-o1, 4-[6-[(3E)-3-butyl-4-[2-[6-[(3E)-3-butyl-4-[2-[6-[(2-[tris(1methylethyl)sily]]bthynyl]-3-pyridinyl]bthynyl]-3-hepten-1-yn-1-yl]-3pyridinyl]ethynyl]-3-hepten-1-yn-1-yl]-3-pyridinyl]-2-methyl- (CA INDEX
 NAME)

PAGE 1-B

- RN 740810-67-7 CAPLUS
- CN 3-Butyn-2-ol, 2-methyl-4-[5-[(3E)-3-propyl-4-[[5-[[tris(1-methylethyl)silyl)ethynyl]-2-thienyl]ethynyl]-3-hepten-1-yn-1-yl]-2-thienyl]- (CA INDEX NAME)

Double bond geometry as shown.



- RN 740810-68-8 CAPLUS
- CW 3-Butyn-2-ol, 2-methyl-4-[5-[(3E)-3-propyl-4-[(5-[(3E)-3-propyl-4-[(5-[(tris(1-methylethyl)silyl)sthynyl]-2-thienyl]ethynyl]-3-hepten-1-yn-1-yl]-2-thienyl]ethynyl]-3-hepten-1-yn-1-yl]-2-thienyl]- (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-B

- RN 864683-96-5 CAPLUS
- CN 3-Butyn-2-ol, 4-[5-[(3E)-5-ethyl-4-[2-(5-ethynyl-2-thienyl)ethynyl]-3-propyl-3-penten-1-yn-1-yl]-2-thienyl]-2-methyl- (CA INDEX NAME)

Double bond geometry as shown.

$$\underset{\text{Me}}{\overset{\text{Me}}{\longrightarrow}} \overset{\text{OH}}{\longrightarrow} \overset{\text{OH$$

- RN 864683-97-6 CAPLUS
- CN 3-Butyn-2-ol, 4-[5-[(3E)-4-[2-[5-[(3E)-4-[2-(5-ethynyl-2-thienyl)ethynyl]-3-propyl-3-hepten-1-yn-1-yl]-2-thienyl]ethynyl]-3-propyl-3-hepten-1-yn-1-yl]-2-thienyl]-2-methyl- (CA INDEX NAME)

PAGE 1-B

- RN 864684-01-5 CAPLUS
- CN 3-Butyn-2-ol, 4-[6-[(3E)-3-butyl-4-[2-[6-ethynyl-3-pyridinyl)ethynyl]-3-hepten-1-yn-1-yl]-3-pyridinyl]-2-methyl- (CA INDEX NAME)

Double bond geometry as shown.

- RN 864684-02-6 CAPLUS
- CNI 3-Butyn-2-01, 4-[6-[(3E)-3-butyl-4-[2-[6-[(3E)-3-butyl-4-[2-[6-ethynyl]-3-pyridinyl]ethynyl]-3-hepten-1-yn-1-yl]-3-pyridinyl]-2-methyl- (CA INDEX NAME)

Double bond geometry as shown.

- RN 864684-04-8 CAPLUS
- CM Thiophene, 2-[(3E)-3,4-dipropyl-6-(trimethylsilyl)-3-hexene-1,5-diyn-1-yl]-5-[2-[tris(1-methylethyl)silyl]ethynyl]- (CA INDEX NAME)

Double bond geometry as shown.

$$\text{Me} \, 3 \, \text{Si} - \text{C} = \text{C} + \text{Si} \, (\text{Pr} - i)$$

- RN 864684-05-9 CAPLUS
- CN Thiophene, 2-[(3E)-4-ethynyl-3-propyl-3-hepten-1-yn-1-yl]-5-[2-[tris(1-methylethyl)silyl]ethynyl]- (CA INDEX NAME)

Double bond geometry as shown.

- RN 864684-07-1 CAPLUS
- CN Thiophene, 2-[(3E)-5-ethyl-3-propyl-4-[2-(trimethylsilyl)ethynyl]-3-penten-1-yn-1-yl]- (CA INDEX NAME)

Double bond geometry as shown.

- RN 864684-08-2 CAPLUS
- CN Thiophene, 2-[(3E)-4-ethynyl-3-propyl-3-hepten-1-yn-1-yl]- (CA INDEX NAME)

RN 864684-31-1 CAPLUS

Double bond geometry as shown.

PAGE 1-B

RN 864684-32-2 CAPLUS

CN Benzenamine, N-[4-[(3E)-5-ethyl-4-[2-(4-ethynylphenyl)ethynyl]-3-propyl-3-penten-1-yn-1-yl]phenyl]-4-[(3E)-4-[2-(4-ethynylphenyl)ethynyl]-3-propyl-3-

 $\label{lem:hepten-1-yn-1-yl-1-yl-1-4-[3E)-4-[2-(4-ethynyl)phenyl)ethynyl]-3-propyl-3-hepten-1-yn-1-yl]phenyl]- (CA INDEX NAME)$

Double bond geometry as shown.

PAGE 1-B

17 740614-00-07 740310-09-39 866684-03-79 866684-03-79 866684-03-29 866684-03-29 866684-03-29 866684-03-29 866684-03-29 866684-03-39 86

R1: DEV (Device component use); IMF (Industrial manufacture); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(preparation of $\pi\mbox{-}\mbox{conjugated}$ aromatic ring-containing acetylene derivs, as organic

electroluminescent devices)

RN 740810-66-6 CAPLUS

CN 3-Butyn-2-ol, 4-[6-[(3E)-3-butyl-4-[2-[6-[(3E)-3-butyl-4-[2-[6-[(3E)-3-butyl-4-[2-[6-[(3E)-3-butyl-4-[2-[6-[2-[tris (1-methylethyl)silyl]ethynyl]-3-pyridinyl]ethynyl]-3-hepten-1-yn-1-yl]-3-pyridinyl]ethynyl]-3-hepten-1-yn-1-yl]-3-

pyridinyl]ethynyl]-3-hepten-1-yn-1-yl]-3-pyridinyl]-2-methyl- (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-C



- RN 740810-69-9 CAPLUS
- CN 3-Butyn-2-ol, 4-[5-[3E)-4-[2-[5-[3E)-5-ethyl-4-[2-[5-[3E)-5-ethyl-3-propyl-4-[2-[5-[ctis(1-methylethyl)silyl]ethynyl]-2-thienyl]ethynyl]-3-penten-1-yn-1-yl]-2-thienyl]ethynyl]-3-propyl-3-penten-1-yn-1-yl]-2-thienyl]ethynyl]-3-penten-1-yn-1-yl]-2-thienyl]-2-methyl]-3-hepten-1-yn-1-yl]-2-thienyl]-2-methyl

Double bond geometry as shown.

PAGE 1-B

$$\underbrace{\sum_{n=Pr} \sum_{n=Pr} c}_{n=Pr} \underbrace{c}_{n} \underbrace{c}_{n$$

PAGE 1-C

__ Me

- RN 864684-03-7 CAPLUS
- CN 2-Thiophenecarbonitrile, 5-[2-[5-[3E]-5-ethyl-4-[2-[5-(3-kydroxy-3-methyl-1-butyn-1-yl)-2-thienyl]ethynyl]-3-propyl-3-penten-1-yn-1-yl]-2-thienyl]ethynyl]- (CA INDEX NAME)

Double bond geometry as shown.



PAGE 1-B



- RN 864684-06-0 CAPLUS
- CN 2,1,3-Benzothiadiazole, 4-[(3E)-3,4-dipropyl-6-[5-[2-[tris(1-methylethyl)silyl]bethynyl]-2-thianyl]-3-hexene-1,5-diyn-1-yl]-7-[(3E)-3-propyl-4-[2-[5-[2-[tris(1-methylethyl)silyl]ethynyl]-2-thianyl]ethynyl]-3-hepten-1-yn-1-yl]- (CA INDEX NAME)

- RN 864684-09-3 CAPLUS
- CN Thieno (3,4-b)gyrazine, 5-[(3E)-3,4-dipropyl-6-(2-thienyl)-3-hexene-1,5-diyn-1-yl]-2,3-diphenyl-7-[(3E)-3-propyl-4-[2-(2-thienyl)ethynyl]-3-hepten-1-yn-1-yl]- (CA INDEX NAME)

- RN 864684-21-9 CAPLUS
- CN Thiophene, 2-[13E]-3,4-dipropyl-6-[4-[13E]-3-propyl-4-[2-[5-[2-[tris(1-methylethyl)sily]]ethynyl]-2-thienyl]ethynyl]-3-hepten-1-yn-1-yl]phanyl]-3-hexene-1,5-diyn-1-yl]-5-[2-[tris(1-methylethyl)sily]ethynyl]- (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A

PAGE 1-B

- RN 864684-22-0 CAPLUS
- CM Benzene, 1-[(35)-3,4-dipropyl-6-[4-[2-[tris]]methylethyl[silyl]sthywl]chenyl]-3-bezene-1,5-diyn-1-yl]-4-[(35)-3-propyl4-[2-[4-[2-[tris](1-methylethyl]silyl]ethywl]]ethyyl]-3-hepten-1-yn1-yl]- (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A

PAGE 1-8

- RN 864684-23-1 CAPLUS
- CN Thiophene, 2-[(3E)-3,4-dipropyl-6-[4-[2-[tris{1methylethyl]silyl]sthyyl]phenyl]-3-hexene-1,5-diyn-1-yl]-5-[(3E)-3-propyl-4-[2-[4-[2-[tris[1-nethylethyl]silyl]ethyyl]phenyl]ethynyl]-3-hepten-1-yn-1-yl]- (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A

- RN 864684-24-2 CAPLUS
- CN Silane, [oxybis[4,1-phenylene[(3E)-3,4-dipropyl-3-hexene-1,5-diyne-6,1-diyl]-4,1-phenylene-2,1-ethynediyl]]bis[tris(1-methylethyl)- (9CI) (CA INDEX NAME)

- RN 864684-25-3 CAPLUS
- CN 2,2'-Bithiophene, 5-[(3B)-3,4-dipropyl-6-[4-[2-[tris[1-methylethyl]sily]]ethynyl]phenyl]-3-hexene-1,5-diyn-1-yl]-5'-[(3B)-3-propyl-4-[2-[4-[2-[tris[1-methylethyl]sily]]ethynyl]phenyl]ethynyl]-3-heyten-1-yn-1-yl]- (CR_INDEX_NAME)

Double bond geometry as shown.

- RN 864684-26-4 CAPLUS
- CN Naphthalene, 2-[(3E)-3,4-digropyl-6-[4-[2-[tris(1-methylethyl)silyl]ethynyl]ethynyl]-bexgne-1,5-diyn-1-yl]-6-[(3E)-3-gropyl-4-[2-[4-[2-[tris(1-methylethyl)silyl]ethynyl]gthnyl]ethynyl]-3-hepten-1-yn-1-yl]- (CA INDEX NAME)

Double bond geometry as shown.

- RN 864684-27-5 CAPLUS
- CII Anthracene, 9-[(3E)-3,4-dipropyl-6-[4-[2-[tris[1-methylethyl]silyl]ethyyl]phenyl]-3-bexene-1,5-diyn-1-yl]-10-[(3E)-3-propyl-4-[2-[4-[2-[tris[1-methylethyl]silyl]ethynyl]phenyl]ethynyl]-3-hepten-1-yn-1-yl]- (CR INDEX NAME)

- RN 864684-28-6 CAPLUS
- CN 2,1,3-Benzothiadiazole, 4-[(35)-3,4-dipropyl-6-[4-[2-[tris[1-methylethyl]sily]]ethynyl]phenyl]-3-bexene-1,5-diyn-1-yl]-7-[(35)-3-propyl-4-[2-[4-[2-[tris[1-methylethyl]sily]]ethynyl]phenyl]ethynyl]-3-hepten-1-yn-1-yl]- (CA IDEX NAWS)

- RN 864684-29-7 CAPLUS
- CN Pyridazine, 3-[(3E)-3,4-dipropyl-6-[4-[2-[tris[1-methylethyl]si]y]]bethyyl]phenyl]-3-hexene-1,5-diyn-1-yl]-6-[(3E)-3-propyl-4-[2-[4-[2-[tris[1-methylethyl]si]y]]ethyyl]phenyl]ethynyl]-3-hepten-1-yn-1-yl]- (CA_NDEX_NAWS)

Double bond geometry as shown.

- RN 864684-30-0 CAPLUS
- CN Benzers, 1-(135)-3,4-dipropyl-6-[4-[2-[tris]1methylethyl]silyl]sthynyl]phenyl]-3-hexene-1,5-diyn-1-yl]-3-[(3E)-5-ethyl-3-propyl-4-[2-[4-[2-[tris]1-methylethyl]silyl]ethynyl]phenyl]ethynyl]-3penten-1-yn-1-yl]-5-[(3E)-3-propyl-4-[2-[4-[2-[tris]1methylethyl]silyl]ethynyl]phenyl]ethynyl]-3-hepten-1-yn-1-yl]- (CA INDEX NAME)

Double bond geometry as shown.

- RN 864684-33-3 CAPLUS

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PAGE 1-B

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS
RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2003:739778 CAPLUS Pull-text

DOCUMENT NUMBER: 139:388935

TITLE: Functional conjugated materials for optonics and

electronics by tetraethynylethene molecular

scaffolding

AUTHOR(S): Nielsen, Mogens Brondsted; Diederich, Francois

CORPORATE SOURCE: Laboratorium fuer Organische Chemie, HCI, ETH

Honggerberg, Zurich, CH-8093, Switz.

SOURCE: Modern Arene Chemistry (2002), 196-216. Editor(s):

Astruc, Didier. Wiley-VCH Verlag GmbH & Co. KGaA:

Weinheim, Germany.

CODEN: 69EMIX; ISBN: 3-527-30489-4

DOCUMENT TYPE: Conference; General Review

LANGUAGE: English

AB A review; the phys. properties of scaffolds based on tetraethynylethene (TEE; 3,4-diethynylhex-3-ene-1,5-diyme) are strongly enhanced by arylation. Indeed, owing to the coolanarity of anilino-substituted TEE scaffolds, very high third-order optical nonlinearities are obtained. Moreover, arylated TEEs are able to undergo photochem. Induced cis-trans isometrization, paving the way for applications as light-driven nol. switches in optoelectronic devices. Suitably functionalized TEE modules are readily incorporated into linear and cyclic n-conjugated scaffolds, employing stepwise acetylenic coupling protocols. Thus, TEE nol. scaffolding has provided access to large, macrocyclic, all-carbon cores and long polyltiacetylene) [FTA] oligomers.

IT 133568-86-10, Tetraethynylethene, aryl derivs.
RL: DEV (Device component use); USES (Uses)

(functional conjugated materials for optonics and electronics by tetraethynylethene mol. scaffolding)

RN 133968-85-1 CAPLUS

CN 3-Hexene-1,5-diyne, 3,4-diethynyl- (CA INDEX NAME)



OS.CITING REF COUNT: 14 THERE ARE 14 CAPLUS RECORDS THAT CITE THIS

RECORD (14 CITINGS)

REFERENCE COUNT: 110 THERE ARE 110 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

15 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2009 ACS on SIN

ACCESSION NUMBER: 2003:189466 CAPLUS Full-text

DOCUMENT NUMBER: 139:101213

TITLE: Euminescent properties of carbon-rich

starburst gold(I) acetylide complexes. Crystal structure of [TEE][Au(PCy3)]4 ([TBE]H4 =

tetraethynylethene)

AUTHOR(S): Lu, Wei; Zhu, Nianyong; Che, Chi-Ming
CORPORATE SOURCE: Department of Chemistry and HKU-CAS Jo.

CORPORATE SOURCE: Department of Chemistry and HKU-CAS Joint Laborotary on New Materials, The University of Hong Kong, Hong

Kong, Peop. Rep. China

SOURCE: Journal of Organometallic Chemistry (2003), 670(1-2),

11-16

CODEN: JORCAI: ISSN: 0022-328X

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 139:101213

AB Two carbon-rich starburst gold(1) acetylide complexes [TEE][Au(PCy3]]4 (3, [TEE]H4 = Lettraethymylethene) and [TEB](Au(PCy3)]3 (6, [TEBH3 = 1,3,5-triethymylethearne) were prepared and their Tw-Ws absorption, emission and excitation spectra have been recorded. In fluid GECC12 solns, 3 exhibits prospt 1(mx*) fluorescence with A0-0 and Amax at 413 and 428 mm, resp., while 6 displays 3(mx*) bobsobrescence with A0-0 and Amax at 446 and 479 mm, resp.

The crystal structure of 3.CH2C12 has been determined

IT 558460-17-69

RL: PR2 (Properties); SPN (Synthetic preparation); PRE2 (Preparation)
(crystal structure; preparation and luminescent properties of
carbon-rich starburst gold acetylide complexes and crystal structure of

tetraethynylethene gold phosphine complex)

RN 558460-17-6 CAPLUS

CN Gold, [µ-[3,4-di(ethynyl-kC2)-3-hexene-1,5-diynato(4-)-

 $\kappa \text{Cl,} \kappa \text{C6}]] tetrakis(tricyclohexylphosphine)tetra-, compd. with$ dichloromethane (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 558460-16-5

CMF C82 H132 Au4 P4

CCI CCS

PAGE 1-A

PAGE 2-A

CM 2

CRN 75-09-2 CMF C H2 C12

C1-CH2-C1

IT 558460-16-59

- RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (mol. structure, luminescence; preparation and luminescent properties of carbon-rich starburst gold acetylide complexes and crystal structure of tetraethynylethene gold phosphine complex)
- RN 558460-16-5 CAPLUS
- CN Gold, [μ -[3,4-di(ethynyl-xC2)-3-hexene-1,5-diynato(4-)-KCl,KC6]]tetrakis(tricyclohexylphosphine)tetra- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A

IT 55660-76-9

RL: RCT (Reactant); RACT (Reactant or reagent) (preparation and luminescent properties of carbon-rich starburst gold acetylide complexes and crystal structure of tetraethynylethene gold phosphine complex)

- RN 55660-76-9 CAPLUS
- CN Silane, 1,1'-[3,4-bis[2-(trimethylsily1)ethyny1]-3-hexene-2,5-diyne-1,6diyl]bis[1,1,1-trimethyl- (CA INDEX NAME)



30 THERE ARE 30 CAPLUS RECORDS THAT CITE THIS OC CITING DEP COUNT.

RECORD (30 CITINGS)

REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS

RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2001:240433 CAPLUS Full-text DOCUMENT NUMBER:

135:19763

TITLE: Pt-tetraethynylethene molecular scaffolding: synthesis

and characterization of a novel class of

organometallic molecular rods

AUTHOR(S): Siemsen, Peter: Gubler, Ulrich: Bosshard, Christian;

Gunter, Peter; Diederich, Francois

Laboratorium fur Organische Chemie, ETH-Zentrum, CORPORATE SOURCE:

Zurich, 8092, Switz.

Chemistry--A European Journal (2001), 7(6), 1333-1341 SOURCE:

CODEN: CEUJED: ISSN: 0947-6539

PUBLISHER: Wiley-VCH Verlag GmbH

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 135:19763

AB The series of monodisperse Pt-bridged TEE oligomers I (R = C.tplbond.CPh; n = 1-6) was prepared by oxidative Glaser - Hay oligomerization of monomer 7 under endcapping conditions. These novel mol. rods extend in length from 3.3 nm to 12.1 nm. Their isolation was achieved by high performance gel permeation chromatog. (GPC), and their purification was best monitored by anal. GPC in combination with matrix-assisted laser-desorption-ionization mass spectrometry (MALDI-TOF MS). The mass spectra of each oligomer revealed the mol. ion or its sodium complex as parent ion together with a clean, highly characteristic fragmentation pattern. Delayed addition of the end-capping reagent PhCCH to the oligomerization mixture afforded polymer I (R = H; n = 1) with an average of ≈32 repeat units and a remarkably narrow mol. weight distribution (Mw/Mn = 1.06), which is indicative of a living polymerization process. UV/Vis spectral data as well as measurements of the second hyperpolarizability y by third harmonic generation (THG) revealed a nearly complete lack of $\pi\text{-electron}$ delocalization along the oligomeric backbone. The Pt atoms act as true insulating centers, and the Pt-C(sp) bonds hardly possess any $\boldsymbol{\pi}$ character. The synthesis of the mol, rods I provides another demonstration of the power of oxidative acetylenic homocouplings for the preparation of unusual nannarchitecture.

- IT 155063-39-1
 - RL: RCT (Reactant); RACT (Reactant or reagent)
 - (Hagihara coupling of)
- RN 155063-39-1 CAPLUS
- CN Silane, 1,1'-[(3E)-3,4-diethynyl-3-hexene-1,5-diyne-1,6-diyl]bis[1,1,1tris(1-methylethyl) - (CA INDEX NAME)

Double bond geometry as shown.

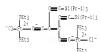


- IT 177500-05-2
 - RL: RCT (Reactant); RACT (Reactant or reagent)
 - (Hagihara coupling of, to form corresponding platinum bis(acetylide) complex)
- PN 177500-66-2 CADLUS
- CN Silane, [(3E)-3-ethynvl-4-[(trimethylsilvl)ethynvl]-3-hexene-1,5-divne-1,6-

diyl]bis[tris(1-methylethyl)- (9CI) (CA INDEX NAME)



- TT 249885-85-76
 - RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 - (failed reaction; preparation and attempted oligomerization of)
- RN 342885-85-2 CAPLUS
- CN Platinum, [µ-[(3E)-3,4-bis[[tris(1-methylethyl)silyl]ethynyl]-3-hexene-1,5-diyne-1,6-diyl]]dichlorotetrakis(triethylphosphine)di-, stereoisomer (9CI) (CA INDEX NAME)



- IT 342885-88-5P
 - RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 - (preparation and desilulation of)

- RN 342885-88-5 CAPLUS
- CN Platinum, bis(triethylphosphine)bis[(32)-6-(trimethylsilyl)-3,4-bis[[tris(1-methylethyl)silyl]-3-hexene-1,5-diynyl]-, (SP-4-1)-(9CI) (CA INDEX NAME)



- IT 342885-69-416, terminated by phenylacetylene
 54285-59-58 34285-31-09 34285-92-19
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
 (preparation and nonlinear optical properties of)
- RN 342885-89-6 CAPLUS
- CN Platinum, bis[[37]-4-ethynyl-6-[tris[1-methylethyl]silyl]-3-[[tris[1-methylethyl]silyl]ethynyl]-3-hexene-1,5-diynyl]bis[triethylphosphine]-, (SP-4-1)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 342885-86-3

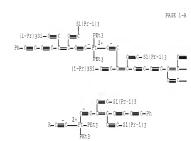
CMF C68 H116 P2 Pt Si4

CCI CCS

- RN 342885-90-9 CAPLUS
- CN Platinum, bis[(32)-8-phenyl-3,4-bis[[tris(1-methylethyl)silyl]ethynyl]-3octene-1,5,7-triynyl]bis(triethylphosphine)-, (SP-4-1)- (9CI) (CA INDEX



- RN 342885-91-0 CAPLUS
- CN Platinum, bis[(32)-8-phanyl-3,4-bis[(tris[1-methylethyl)silyl]ethynyl]-3-octone-1,5,7-tripynyl][µ-[(33,92)-3,4,9,10-tetrakis[[tris[1-methylethyl)silyl]ethynyl]-3,9-dodecadiene-1,5,7,11-tetrayne-1,12-diyl]]tetrakis[tristhylbosphine]di-, stereoisomer (9C1) (CA INDEX MAME)



PAGE 1-B



- RN 342885-92-1 CAPLUS
- CN Platinum, bis[(32)-8-phenyl-3,4-bis[(tris(1-methylethyl)silyl)ethynyl]-3-octone-1,5,7-triynyl]bis[µ-[(32,92)-3,4,9,10-tertakis[(tris(1-methylethyl)silyl]ethynyl]-3,9-dodecadiene-1,5,7,11-tetrayne-1,12-dlyl]]beakis[triethylphosphine]tri-, stereoisomer [GCI] (CA INDEX NAME)





PAGE 1-C



TT 340005_04_30

RL: RCT (Reactant): SPN (Synthetic preparation): PREP (Preparation): RACT (Reactant or reagent)

(preparation and oxidative Glaser-Hav oligomerization of)

RN 342885-86-3 CAPLUS

CN Platinum, bis[(3Z)-4-ethynyl-6-[tris(1-methylethyl)silyl]-3-[[tris(1methylethyl)silyl]ethynyl]-3-hexene-1,5-diynyl]bis(triethylphosphine)-, (SP-4-1)- (9CI) (CA INDEX NAME)



OS.CITING REF COUNT: 45 THERE ARE 45 CAPLUS RECORDS THAT CITE THIS

RECORD (45 CITINGS)

THERE ARE 76 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT:

RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1999:370934 CAPLUS Full-text

DOCUMENT NUMBER: 131:31961 TITLE:

PERSIT SHER!

Tetraethynylethenes: versatile carbon-rich building

blocks for two-dimensional acetylenic scaffolding Diederich, François

AUTHOR(S):

CORPORATE SOURCE: Department of Chemistry, Swiss Federal Institute of Technology, Zurich, CH-8092, Switz.

NATO ASI Series, Series C: Mathematical and Physical

SOURCE: Sciences (1997), 499 (Modular Chemistry), 17-31

CODEN: NSCSDW; ISSN: 0258-2023 Kluwer Academic Publishers

DOCUMENT TYPE: Journal; General Review LANGUAGE: English

- AB Derivs. of tetraethynylethene (TEE, 3,4-diethynyl-hex-3-ene-1,5-diyne) constitute a versatile mol. construction kit for acetylenic mol. scaffolding. TEEs were introduced into multinanometer-sized functional mol, and polymeric materials with stable, extended C cores that exhibit unusual electronic and optical properties. The planar TEE C frame is a basic repeat unit for the construction of two-dimensional crystalline all-C networks. Starting from cisbis-deprotected TREs, annulenes were prepared as macrocyclic precursors to such networks. The challenges encountered in the formation of extended regular C networks by oxidative acetylenic coupling are discussed, and techniques from supramol, chemical probably overcome the difficulties that prevented their preparation so far. One approach consists in the selfassembly of metal-acetylenic networks under thermodn. control and error checking, followed by reductive elimination of the metal centers to the all-C net. Expanded radialenes represent another class of stable, extended C-rich compds, which were prepared for the 1st time starting from TEE precursors. Trans-bis-deprotected TEEs provided access to rod-like oligomers and polymers with the novel polytriacetylene (PTA) backbone. The redox-properties of these remarkably stable materials are discussed. Tetrakis(phenylethynyl)ethene forms highly ordered charge-transfer complexes with Π -acceptors in the solid state and in solution By attaching p-donor and p-acceptor substituted Ph rings to TEEs, novel MLO materials were obtained. It was shown for a large class of TEEs that donor/acceptor substitutions and fully two-dimensional conjugation strongly enhance the 3rd-order nonlinear optical properties. The relevance of the results obtained from studies of extended unsatd. C-rich materials for C allotropy in general is discussed. A review with 30 refs. IT 100968-85-16F, Tetraethynylethene, organic derivs.
- RL: PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); RACT (Reactant or reagent)

(as versatile carbon-rich building blocks for two-dimensional acetylenic scaffolding)

RN 133968-85-1 CAPLUS

CN 3-Hexene-1,5-diyne, 3,4-diethynyl- (CA INDEX NAME)



OS CITING REF COUNT:

1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD

(1 CITINGS) REFERENCE COUNT:

55 THERE ARE 55 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT